



Canadian Community Epidemiology
Network on Drug Use (CCENDU)

2002 National Report

Drug Trends and the CCENDU network



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Synopsis

The Canadian Community Epidemiology Network on Drug Use (CCENDU) was established in 1996 to monitor drug use and adverse consequences of drug use at the community level. Twelve sites currently participate in the network to varying degrees and additional sites are under development. Despite ongoing funding concerns, site reports for 2001 were prepared by Vancouver, Edmonton, Regina, Winnipeg, Toronto and St. John's, and for 2002 by Winnipeg, Fredericton, Vancouver and Toronto with interim reports from Regina and Ottawa. This overview report has four aims: (1) to describe the network and provide an update on its development, (2) to outline the network's indicators and data sources, (3) to highlight the most currently available national data, and (4) to present themes and select data from the 2002 and 2001 CCENDU site reports¹. When data permit, findings are presented by sex.

This report begins by providing background on the CCENDU network and an update of its activities and progress since the previous national report (Single 2000) and since the network's national evaluation (Ogborne 1999)². Next, CCENDU's data sources and indicators are outlined. Key Canadian surveys and other national data sources specific to substance use and abuse are highlighted, along with their strengths and limitations. This undertaking identifies the data that CCENDU has accessed for dissemination to the local site level, and familiarizes the reader with the abundance or lack of available substance use and abuse data in Canada. The review of CCENDU's indicators focuses on the network's continuing efforts to improve on them.

The report then turns to highlighting national data on substance use and abuse. The purpose of the data presentation is to provide as current and inclusive an overview as possible at the national level. The aim is not to interpret the data and draw conclusions or even to suggest explanations, but rather, to present and summarize the data. The key findings for each indicator are outlined in a chronological snapshot at the start of each section. The most recent data available are presented wherever possible. Thus, the section snapshots serve as a summary of key findings for each indicator, as well as a gauge of available current Canadian data. The snapshots are divided into pre- and post-1997 to assist in highlighting the need for more timely data. This section also provides an update on select data contained in the *1999 Canadian Profile*, jointly published by the CCSA and the Centre for Addiction and Mental Health³. While the purpose of this section of the report is to provide highlights of national data, the overall intent is for the reader to subsequently access CCENDU's Web site at www.ccsa.ca for the periodic release of the full datasets, topic-specific summaries, research updates (establishing trend data) and other related information.

The final section of the report presents themes and select data from the most current CCENDU site reports and updates. Regular site updates and increased site-specific information and data will be made available regularly on the CCENDU Web site.

This report is written for a diverse audience, that is, from front-line workers to policy analysts and from individuals with an in-depth understanding of data analysis and presentation techniques to those who are not as knowledgeable. The format of the report was chosen to assist various audiences to navigate through it. Data summaries and highlights at both the national and site levels follow.

NATIONAL LEVEL

Notwithstanding the methodological difficulties in comparing a variety of data sources, some apparent national trends by indicator are highlighted⁴:

PREVALENCE

Alcohol Use: Males continue to consume alcohol more frequently and in greater amounts than females. However, recent survey findings reveal a higher frequency of drinking among female undergraduate university students in comparison with their male counterparts, and a slightly greater consumption of alcohol by females 15–19 years old than by males of this age group⁵. A decrease in female alcohol use during pregnancy has been reported, as well as in drinking and driving over the legal limit by both males and females. Overall, there has been a slight increase in per-capita consumption of domestic and imported beer in Canada, based on sales data, and an increase in the consumption of spirits and wine. Likewise, there has been an increase in self-reported alcohol consumption among both males and females. Legally obtained and illegally produced or sold alcohol remains a major issue affecting some Aboriginal communities.

Illicit Drug Use: Cannabis continues to be the most frequently used illicit drug among male and female adults and youth. Although trend data are not available, driving after consuming a potentially impairing drug has been reported as quite common, with a small percentage reporting use of specific illegal drugs or marijuana. At the Aboriginal community level, the use of illegal drugs is reported to be a rising and pernicious concern.

Licit Drug Use: There has been an increase in reported female use of select non-prescription and prescription drugs while use by males has generally decreased or remained stable. The most substantial increase by females has been in the use of anti-depressants. One-quarter of women reported the use of prescribed and over-the-counter medication during pregnancy. Over the past three decades, there has been a significant increase in expenditures for prescribed and non-prescribed drugs in Canada. In 2001, an average family used 30 prescriptions, translating into a cost of \$1,209.58.

Solvent Abuse: There is significant need for increased research attention to this area. Current rates of solvent abuse within Canada's Aboriginal population are unknown, although the media regularly depict the rates as higher in comparison to the general population, in particular among young people.

ENFORCEMENT

Alcohol: There has been a decrease in alcohol seizures. There has also been a decrease in adult males and females processed through the court system for impaired driving. Proportionally more males than females convicted of impaired driving are sentenced to prison in comparison with other sentencing options. There is a strong association between alcohol use and crime.

Illicit Drug Use: There has been stability in the number of significant drug seizures, but a notable decrease in the dollar value, likely due to a decline in the quantity of certain drugs seized and a fall in the street value of cocaine. There has been an increase in the rate of male and female adults and youth per 10,000 Canadian population charged with a drug offence, with substantially more males than females charged. Cannabis charges were the drug offences that adult and youth males and females were most likely to be

charged with. Among adults, women were more likely than men to be charged with trafficking and production of cannabis, whereas men were more likely to be charged with possession. Among youth, distribution between the offence categories for cannabis charges was similar between the sexes. There has been a decrease in adult males and females processed through the court system for the overall drug-related offences of trafficking and possession. Of those receiving a sentence of imprisonment, a greater percentage of males than females received a prison term for drug trafficking, but the opposite is true for drug possession. There has been a slight yet continuous increase in the number of individuals incarcerated for a drug offence. Although the majority of incarcerated drug offenders are male, the percentage of females incarcerated has nearly doubled in the past seven years. There is a strong association between illicit drug use and crime.

TREATMENT

There has been a decrease in the number of residential care facilities for drug and alcohol addiction in Canada and in the total number of licensed or authorized beds. Among Canada's identified 1,012 addiction treatment programs, the greatest availability of services is for alcohol problems and the least for hallucinogens. There has been a steady decrease in the share of call volume concerning substance abuse to the Kids Help Phone. Of the substance abuse-specific calls, those referring to drug problems are twice as numerous as those dealing with alcohol concerns. Data from the Parents Help Line show an increase in the number of calls concerning substance abuse, with a slight increase in the overall share of call volume. There is a need within Aboriginal communities for treatment to focus on community wellness and traditional ways of healing, coupled with significant changes in the conditions that lead to addictions.

MORBIDITY

Alcohol: "Alcohol dependence syndrome" accounted for the largest number of live hospital separations (discharge of patient) by "most responsible diagnosis" and "all other diagnoses"⁶ for both males and females. "Alcoholic cirrhosis of the liver" represented the most common diagnostic category for dead separations (death of patient in hospital), and "alcohol dependence syndrome" accounted for the largest number of "all other diagnoses" leading to death for males and females.

There has been a slight decline in the number of drivers involved in alcohol-related serious injury motor vehicle crashes in Canada.

Illicit Drugs: Illicit drug use is defined as the non-medical and non-scientific use of drugs that are listed in schedules I, II, III and IV of the Controlled Drugs and Substances Act (e.g., cocaine), as well as drugs that are without doubt reported to be used for a purpose other than for what they were medically intended (categorized as poisoning, and select neo-natal in the International Classification of Diseases, Injuries, and Causes of Death, 9th revision).

The most common diagnostic category ("most responsible diagnosis") for live hospital separations associated with illicit drug use for females and males was "suicide and self-inflicted poisoning by solid or liquid". By "all other diagnoses", the most live separations for females were for "poisoning by benzodiazepine-based tranquillizers" and for males it was "cannabis abuse". The majority of illicit drug use-related dead separations by most responsible diagnosis for females and males involved "suicide and self-inflicted poisoning by solid or liquid". By all other diagnoses, the leading cause of separations for both males and females was "poisoning by opiates and related narcotics".

Licit/Illicit Drugs: Licit/illicit drug use is defined as the use of drugs in which it is not possible to determine (e.g., accidental poisonings) if the purpose of use was medically or scientifically intended or not.

The “most responsible diagnosis” associated with licit/illicit drug use cited in the greatest number of live hospital separations for females and males was “accidental poisoning by drugs, medicament and biologicals”. Live separations for females and males in which licit/illicit drug use was responsible to some extent (as opposed to most responsible diagnosis) were greatest for “other, mixed or unspecified drug abuse”. As for dead separations by most responsible diagnosis, one category comprised all deaths – “accidental poisoning by drugs, medicaments and biologicals”. Dead separations in which licit/illicit drug use was responsible to some extent for males was greatest for “other, mixed or unspecified drug abuse” and for females was “unspecified drug dependence”.

MORTALITY

Alcohol: The leading causes of alcohol-attributed mortality for females and males were “alcoholic cirrhosis of the liver” and “cirrhosis of the liver without mention of alcohol”⁷. There was a slight decrease for both females and males in alcohol-related deaths. There has been a decrease in alcohol-related crashes resulting in death as a percentage of all crashes resulting in death.

Illicit Drugs: “Suicide and self-inflicted poisoning by solid or liquid” accounted for the majority of male and female illicit drug deaths. There was an increase in illicit drug deaths for both males and females.

Licit/Illicit Drugs: The majority of licit/illicit drug deaths were a consequence of “accidental poisoning by drugs, medicaments and biologicals” for both males and females. There was an increase for females and a decrease for males. Overall, there was a slight increase in deaths attributable to licit/illicit drugs.

HIV/AIDS and HEPATITIS C

Injection drug use as a risk factor for HIV has decreased substantially for females and only slightly for males. Injection drug use and the sharing of needles is the main cause of hepatitis C in Canada. It accounts for approximately 70% of all new infections.

More specifically:

PREVALENCE

- In 2000–01, nearly three times as many males as females reported drinking five or more drinks on one occasion 12 or more times a year. There was similarity between the sexes in drinking this amount less than 12 times a year. *See page 18.*
- In 2000, 18%⁸ of drivers admitted to driving within two hours of taking some type of drug that was potentially impairing. Of the respondents, 1% admitted to driving while taking illegal drugs and 2% while consuming marijuana. *See page 27.*
- From 1996–97 to 1998–99, there was an increase in female and a decrease in male reported use of select non-prescription and prescription drugs (tranquillizers, anti-depressants, opioid analgesics, sleeping pills, diet pills) in the past month. *See page 30.*
- In 1998–99, 10% of 12- and 13-year-old females and males reported that their friends had tried glue or solvents. *See page 36.*

ENFORCEMENT

- In 2000–01, more than twice as many males as females charged with impaired driving received a prison sentence. *See page 41.*
- In 2001, cannabis charges represented the majority of drug offences with which adult males and females were charged. Sixty-three percent of charges for possession involved men, compared with 44% for women. Women were more likely than men to be charged with trafficking (33% vs. 25%) and production (22% vs. 12%). *See page 44.*

TREATMENT

- There was a decrease from 1993–94 to 1998–99 in the number of residential care facilities for drug and alcohol addiction problems in Canada and in the total number of licensed or authorized beds. *See page 54.*
- Approximately 6% of the total call volume to Kids Help Phone between 1998 and 2002 was for substance abuse issues. Fifty-nine percent of the calls that required in-depth counselling were for drugs and 23% for alcohol, while the remaining 18% were a combination. *See page 54.*

MORBIDITY

- In 2000–01, there were an estimated 56,161 hospital separations, both live and dead, attributable to alcohol and drug use as the most responsible diagnoses in Canada for individuals 15 years of age and older. There were a further 137,429 hospital separations where alcohol and drug use were responsible to some extent. *See page 60.*
- In 2000, an estimated 3,372 drivers were involved in alcohol-related serious injury crashes in Canada. This is a slight decline from 1995. *See page 62.*
- In 2000–01, the most common cause of live hospital separations associated with illicit drug use for females and males (by “most responsible diagnosis”) was “suicide and self-inflicted poisoning by solid or liquid” (11,339 females and 5,826 males). *See page 63.*
- In 2000–01, the most common cause of live hospital separations associated with licit/illicit drug use for females and males (by “most responsible diagnosis”) was “accidental poisoning by drugs, medicament and biologicals” (1,843 females and 1,393 males). *See page 64.*

MORTALITY

- In 1999, there were 4,502 deaths in Canada in which alcohol or drugs were the underlying cause for individuals 15 years of age and older (not including motor vehicle accidents). This is a decrease from 4,576 deaths in 1998. *See page 72.*
- In 2000, an estimated 1,069 people died in alcohol-related crashes. *See page 73.*
- In 1999, “suicide and self-inflicted poisoning by solid or liquid” accounted for the greatest number of male and female deaths related to illicit drug use (262 males and 249 females). *See page 74.*
- In 1999, the greatest number of licit/illicit drug deaths were a consequence of “accidental poisoning by drugs, medicaments and biologicals” for males (562) and females (234). *See page 75.*

HIV/AIDS and HEPATITIS C

- From 1996 to 2001, injection drug use as a risk factor for HIV decreased substantially for females (from 51% in 1996 to 32% in 2001) and remained relatively stable for males (from 29% in 1996 to 22% in 2001). *See page 80.*
- Injection drug use and needle sharing account for approximately 70% of all new hepatitis C infections in Canada. *See page 80.*

SITE LEVEL

It is difficult to make generalizations across the local CCENDU site reports because the collection of data is not standardized, although efforts are being made to address this (*see CCENDU Network Update, page 5*). However, common themes can be reasonably identified and they include: continued identification of alcohol as the most problematic substance among adults and youth; cannabis as the most common illicit drug used, with reported increased use among youth; continued elevated and increased use of cocaine; increases in injection drug use and a continued relationship with increases in hepatitis C; the injection of Talwin and Ritalin in Western Canada and Dilaudid in Atlantic Canada; and concern over poly drug use and designer drugs (in particular ecstasy).

- Edmonton, AB is estimated to have 5,000 injection drug users. An ethnographic study concluded that the most frequent first drug injected was cocaine (31%) followed by methadone/speed (27%).
- In 2001, there was a marked increase in the number of treatment clients presenting with cannabis-related problems in Fredericton, NB. This number has been increasing yearly, in particular among younger age groups.
- The 1998 Student Drug Use Survey revealed that in Halifax, NS the use of alcohol, nicotine and cannabis more than once a month increased respectively by 30%, 40% and 9% since 1991. The increase in cannabis use tripled (from 4% in 1991 to 14% in 1998).
- According to the 2000 SurviDU study, there were an estimated 962 cases of HIV related to injection drug use in Ottawa, ON. Hull, QC was estimated to have 186 cases.
- The 2000–01 and 2001–02, the Regina (SK) Health Authority, Alcohol and Drug Services Client Information System revealed that the number of clients from one year to the next was nearly identical (3,852 vs. 3,848). The 2001–02 data further showed that alcohol remains what clients most often reported as problematic.
- In 2002, there was a strong presence of rave drugs in St. John's, NL compared with three years ago.
- In 2000, the number of marijuana seizures continued on a decade-long upward trend, representing over half (52%) of drug seizures in Toronto, ON. MDMA (ecstasy) enforcement activity indicated a large increase from six seizures in 1997 to 219 in 2000. MDMA accounted for 4% of the total number of drug seizures in 2000. Seizures of cocaine and heroin have declined over the past decade.
- In 2001, there were 222 illicit drug deaths in British Columbia, of which 90 were in Vancouver. This is the highest absolute number and per-capita rate in Canada.
- Whitehorse, YK had the highest rate of alcohol consumption in Canada in 2001. Cases of alcohol being injected have been documented there.
- In 2001, the most prevalent illicit drug in Manitoba (including Winnipeg) was cannabis. Despite its presence, heroin is still not considered a major drug in Winnipeg, and other drugs more commonly reported are cocaine, crack cocaine, hashish and hashish oil, Talwin, Ritalin, psilocybin and LSD. Cocaine is often seized by law enforcement in large quantities, and the Addictions Foundation of Manitoba reports high usage of cocaine among its client populations.

This report concludes by detailing plans that are being undertaken to increase the CCENDU network's monitoring capabilities.

NOTES

- 1 For the local city-level CCENDU site, the most recent and comprehensive of the 2002 site report data are reported on, along with data from the 2002 annual meeting site update and 2001 site report data.
- 2 Single, E. (2000). *The Canadian Community Epidemiological Network on Drug Use: Overview Report, 2000*. Ottawa: Canadian Centre on Substance Abuse; and Ogborne, A. (1999). *An Evaluation of the Canadian Community Epidemiology Network on Drug Use (CCENDU)*. Ottawa: Canadian Centre on Substance Abuse.
- 3 Canadian Centre on Substance Abuse and Centre for Addiction and Mental Health (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 4 Note that the most recent data are reported. For the most part the data are post-2000, but when these not available, earlier data may be reported (note that pre-1997 is not reported unless it is to describe trends that conclude post-1997 or it is the most recent).
- 5 The accuracy of statistical analysis is affected by the size of sampling variation. When taking the sampling variation or error into account, some statistical estimates may not be statistically significant. Therefore, caution should be exercised in interpretation of comparative differences calculated with sample survey data in this report. For more information regarding survey sample data used in this report, please refer to the complete review of the methodology and confidence intervals of the original surveys (see *Appendix A*).
- 6 See sections on Morbidity (p. 38) and Mortality (p. 48) for a complete definition and explanation.
- 7 The finding should be interpreted with caution because this disease accounts substantially for causes other than alcohol.
- 8 Numbers are rounded in the synopsis.

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Introduction: Canadian Community Epidemiology Network on Drug Use

The Canadian Community Epidemiology Network on Drug Use (CCENDU) was established in response to a 1995 feasibility study that identified the need for a Canada-wide surveillance system on substance use. Spearheaded by the Canadian Centre on Substance Abuse (CCSA) and guided by a steering committee, CCENDU is a collaborative project involving federal, provincial, and community agencies, with intersecting interests in drug use, health and legal consequences of use, treatment, and law enforcement. The strategic vision of CCENDU, adopted by its steering committee in Spring, 2001, is captured in the following statement: *“A partnership to monitor emerging drug trends and associated factors”*.

The major goal of CCENDU is to coordinate and facilitate the collection, organization, and dissemination of qualitative and quantitative information on drug use among the Canadian population at the local, provincial/territorial, and national levels. Further, CCENDU aims to foster networking among key multi-sectoral partners, to improve the quality of data being gathered, and to serve as an early warning system concerning emerging trends. Ultimately, CCENDU strives to support and encourage sound policy and program development related to drug use. One means by which the network achieves this is collaborating with the Health, Education and Enforcement in Partnership (HEP) network. HEP is a network of organizations and individuals representing diverse perspectives, and is committed to addressing substance use and abuse issues through collective initiatives.

At the national level, CCENDU's steering committee includes representatives from CCSA, Canadian Society for Addiction Medicine, Correctional Service of Canada, Federation of Canadian Municipalities, Health Canada, and the Royal Canadian Mounted Police. Locally, 12 urban centres currently participate in CCENDU to varying degrees: Vancouver, Calgary, Edmonton, Regina, Winnipeg, Ottawa, Toronto, Montreal, St. John's, Halifax, Fredericton and Whitehorse. Additional sites are under development.

Each local CCENDU site collects, collates and interprets data and information in eight major drug-use areas (alcohol, cocaine, cannabis, heroin, sedative-hypnotics and tranquillizers, hallucinogens other than cannabis, stimulants other than cocaine, and licit drugs) and in six indicator areas (prevalence, enforcement, treatment, morbidity, mortality, and the human immunodeficiency virus [HIV] and acquired immunodeficiency syndrome [AIDS] and hepatitis C, which includes injection drug use and needle exchange information) to produce local reports. Drug use areas are typically reported in three broad categories: alcohol, illicit drugs and licit drugs⁹, with the latter comprising prescription and non-prescription drugs and solvents. Licit drugs and hepatitis C were added to the listing of data collected at the 2001 CCENDU annual meeting. The ideal for the local site report is to provide information on substance abuse (e.g., the non-medical use of prescription drugs), but often the data do not allow for this, and so use data are presented. Local sites may at times deviate from the listed data collection areas and include additional information specific to their site.

Soon after its inception, CCENDU recognized the importance of enhancing its international linkages with relevant organizations to exchange information and ideas. This has led to network attendance at the bi-annual meetings of the Community Epidemiology Working Group of the United States, and useful exchanges with such networks as the South African Community Epidemiology Network on Drug Use (SACENDU), the Sistema

de Vigilancia Epidemiológica de las Adicciones (SISVEA) in Mexico, and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

The first CCENDU national report was published in 1997 (Poulin 1997¹⁰), the second in 1999 (Poulin et al. 1999¹¹) and the third in 2000 (Single 2000¹²). The most recent report conveyed that alcohol use remains the highest priority for all sites. In 1999, it was reported that some sites experienced considerable increases in alcohol and hallucinogen use among youth (Poulin et al. 1999). The 2000 report further conveyed increases in illicit drug use among Canadian adolescents; concern over the use of ecstasy; high rates of overdose deaths in British Columbia (specifically Vancouver); the important role of drugs in spreading communicable disease, with injection drug use reported among all sites as the leading cause of new HIV infections; and several sites reported an increase in problems associated with the recent expansion of legalized gambling. It remained the case that the use of drugs other than alcohol was found to be low in comparison to rates in the US.

According to an evaluation conducted in March, 1999 (Ogborne 1999¹³), CCENDU has been successful at establishing a national framework, facilitating data analysis, and increasing awareness of data limitations. However, more time is needed to address its identified data limitations, methodological inconsistencies, timeliness in reporting, and linkages between researchers and program planners. Progress to date in each of these areas is addressed in the next section of this report.

Health Canada provides a small amount of funding to the Canadian Centre on Substance Abuse (CCSA) for the coordination of CCENDU, and so the network remains a largely volunteer effort by health and law enforcement officials in each of the local sites. In 2002, in collaboration with the HEP network, CCENDU was awarded additional project funding from the National Crime Prevention Centre for their proposal, entitled *Establishing a Proactive Model for Identifying and Developing Community Responses to Substance Abuse*. The project commenced in early 2003 (*see next section for a description of the project*). CCENDU also applied for and received financial support in 2002 from the Canadian Institutes of Health Research, Institute of Neurosciences, Mental Health and Addiction, for its site coordinators to participate in a joint annual meeting with HEP, which was held in conjunction with the 2002 World Forum on Drugs in Montreal.

There has not been a national Canadian survey focusing on alcohol and drugs since 1994, and while one is in the planning stage (led by the Canadian Executive Council on Addictions), there remains a dearth of national data that can be disaggregated (broken down) to the local site level. Sections of the 1998–99 *National Population Health Survey* and the 2000–01 *Canadian Community Health Survey* do address substance use, but only in a limited way. There have been some provincial and regional surveys on alcohol and drug use, but many of the CCENDU sites still do not have even the most basic information regarding rates and patterns of use. Given the lack of funding for local data collection efforts, only six community networks have prepared reports for 2001 (Vancouver, Edmonton, Regina, Winnipeg, Toronto, St. John's) and six for 2002 (Winnipeg, Fredericton, Vancouver, Toronto, Regina, Ottawa). Based on these reports, there is insufficient new or comparable information to warrant a national report with detailed tables and comparisons of the findings among various Canadian communities. This report does, however, provide an overview of Canada, drawing on national data, and summarizes the individual site reports. Highlights of the national data are presented, and the reader is encouraged to access the original sources for complete insight as well as the CCENDU Web site for release of the complete data sets, topic specific summaries and other related information. As well, the full local reports are available through the sites and CCSA.

Unlike previous national CCENDU reports, in addition to the regular data sources, this overview report presents select data from key research studies that are not conducted

on an annual basis. The aim is to provide the most current depiction of substance use in Canada. Future CCENDU reports will not be as detailed as this one, and instead, regular Web-based report updates are planned.

This overview report has four aims: (1) to describe the network and provide an update on its development, (2) to outline the network's indicators and data sources, (3) to highlight the most current available national data, and (4) to present themes and select data from the 2002 and 2001 site reports. Because the CCENDU network monitors addictions issues generally, focus is placed on alcohol and illicit drugs (with the recent addition of licit drugs, for which modest data have been collected to date). Tobacco use is also a concern for many CCENDU sites, but smoking and tobacco-related harm are generally monitored by other systems. Gambling is similarly a concern in many sites, but there is relatively little information available as yet concerning the nature and extent of gambling problems associated with the recent expansion of legalized gaming in Canada.

NOTES

- 9 Note that the definition of licit and illicit drug use provided here is expanded on in the presentation of the morbidity and mortality data.
- 10 Poulin, C. (1997). *CCENDU Inaugural National Report*. Ottawa: Canadian Centre on Substance Abuse.
- 11 Poulin, C., E. Single, P. Fralick (1999). *CCENDU Second National Report*. Ottawa: Canadian Centre on Substance Abuse.
- 12 Single, E. (2000). *CCENDU Overview Report*. Ottawa: Canadian Centre on Substance Abuse.
- 13 Ogborne, A. (1999). *An Evaluation of the Canadian Community Epidemiology Network on Drug Use*. Ottawa: Canadian Centre on Substance Abuse.

CCENDU network update

Funding continues to be an obstacle for the CCENDU network. Nonetheless, several steps have been taken since the 2000 national report and CCENDU evaluation (Ogborne 1999) towards stabilizing and expanding the network. CCENDU has continued to advance in *establishing its national framework* in several key ways. These include the creation of a strategic vision to assist in clearly identifying CCENDU's goals and objectives and defining individual roles and responsibilities; expansion of the steering committee to create more effective partnerships, facilitate data sharing, promote higher quality information, and build the capacity of local sites; creation and distribution of a network pamphlet; and continued communication with the well established US Community Epidemiology Working Group.

CCENDU has also continued *facilitating data analysis*. Two key efforts have been to capitalize on CCSA's Memorandum of Understanding with Carleton University, which allows access to pertinent data sets, and CCSA's undertaking of a systematic review of available national data sources¹⁴. This review enabled the disaggregation of national data to the local site and provincial levels, and increased the network's awareness of data limitations (*see next section for a detailed explanation*).

Areas identified in the 1999 CCENDU review as requiring increased attention (data limitations, methodological inconsistencies, timeliness of reporting, and linkages between researchers and program planners) have been addressed to varying degrees. Again, through CCSA's systematic review of available data sources, existing *data limitations* have started to be addressed by identifying, accessing and disaggregating data to the local site level¹⁵ (e.g., law enforcement through the Uniform Crime Reporting Survey, morbidity through the Canadian Institute for Health Information, mortality through Statistics Canada (Health Statistics Division), treatment through Statistics Canada's Residential Care Facilities survey, and prevalence through the National Population Health Survey and the Canadian Community Health Survey – Cycle 1.1). In addition, licit drugs has been included as a major data collection area, information on type of substance abuse calls received at the national Kids Help Phone and Parent Help Line programs has been accessed, solvent data from the national Youth Solvent Abuse Committee is in the process of being included, hepatitis C has been included as an indicator, and the feasibility of Aboriginal on-reserve data collection is being explored (*see next section for a complete listing*).

Methodological inconsistencies have similarly been addressed through the identification of standardized data sources (identified above) and collection techniques (e.g., standardization of International Classification of Diseases, Injuries and Causes of Death, 9th revision [ICD-9] codes and in the future, International Statistical Classification of Diseases and Related Health Problems, 10th revision [ICD-10CA] codes). This will assist with comparability across the sites and the establishment of new sites.

Timeliness of reporting is a continued obstacle due to inconsistent data availability, and so a Web-based format for regular updates at the national, provincial and local levels is in the development phase. Also, consensus was reached at the 2002 CCENDU annual meeting on a plan to work toward a unified release date of local site reports (October) and the national report (December) to coincide with the CCENDU annual and CEWG bi-annual meetings.

And last, the suggested need for *linkages with program planners* is being addressed through the development and release of the first in an on-going series of joint quarterly newsletters with the HEP network, hosting of a combined CCENDU/HEP 2002 annual

meeting with the theme “From Data Collection to Policy Implementation – Narrowing the Gap”, and funding from the National Crime Prevention Centre (NCPC) for CCENDU’s joint funding proposal with HEP.

The NCPC-funded project, entitled *Establishing a Proactive Model for Identifying and Developing Community Specific Responses to Substance Abuse*, commenced in April, 2003. It is a three-year project that will enable the joint expansion of the CCENDU and HEP networks. The vision of the project is: “A venue to establish, strengthen and maintain collaboration at the local level within the substance abuse field by establishing a proactive model for identifying (role of CCENDU) and developing (role of HEP) community specific responses”. The goals of the project are: (1) to develop an innovative and sustainable means of addressing a root cause of crime, i.e., substance abuse, at the community level by *establishing a model* for identifying, developing and implementing community-specific responses; (2) to *establish community partnerships* in the crime and substance abuse fields that build on existing local, national and international governmental and non-governmental collaborations rooted in the CCENDU and HEP networks and that are locally driven and action oriented; and (3) to *document and evaluate the established community response model* so that it may be applied to other communities across Canada, both within and outside the realm of substance abuse.

A community-based response to substance abuse is vital to identifying and addressing the individual needs of a community. This project must therefore be done “by, for and with” the community. Under the leadership of CCSA, a model is being established that will act as a template for identifying and creating community specific responses to substance abuse. This model will be based on the existing collaborations between CCSA, CCENDU and HEP. It will serve as an ideal venue by which collaboration at the local level within the substance abuse field can be established, strengthened and maintained.

The first stage in the development of the model is to solicit and document the knowledge of community experts. A partnership has been established between CCSA and Carleton University, Department of Sociology and Anthropology and Dr. Tulio Caputo, in which two student research assistants have been appointed to conduct interviews with HEP and CCENDU network members. The research objective is to identify key factors that will contribute to: (1) the successful identification, development and evaluation of the community response model, and (2) the establishment of CCENDU and HEP local networks and their partnerships. Preliminary data were also collected at the joint national 2002 HEP/CCENDU annual meeting.

Several additional activities have been taken on by the network since the 2000 report. The majority contribute to strengthening the capacity of the national network and local sites. An on-line community is currently being explored for the CCENDU site coordinators and committee members to facilitate information sharing. As well, the on-line discussion facilities of the Virtual Clearinghouse on Alcohol, Tobacco and Other Drugs will be used to discuss and take action on timely issues within the network. The first moderated on-line discussion will focus on data collection methodologies surrounding the non-medical use of prescription drugs and is scheduled for mid-2003. And last, contact with and presentations to the Federation of Canadian Municipalities drug strategy pilot sites have been made to foster their involvement in local CCENDU site activities.

NOTES

14 This review was conducted by CCENDU Research Officer Karen Garabedian and directed by CCENDU’s National Research Advisor Colleen Anne Dell, and the network’s steering committee.

15 When it is not possible to disaggregate data to the local site level, it may be possible at the provincial level.

Data sources and indicators

DATA SOURCES¹⁶

A review of national data sources was conducted with the aim of enhancing CCENDU's cross-country collection of longitudinal substance use data and of working toward increased data standardization across the sites. Where available, national-level data were acquired to provide information in areas in which local site data are currently not available. The intent of the national data is to supplement information gathered by local sites, and not to replace these valuable sources. In addition, where feasible, the national data were disaggregated to the provincial and local levels, and distributed to the sites for inclusion in their reports¹⁷. National surveys and other national data sources that offer insight into substance use (e.g., Health Canada surveillance reports) were reviewed. Some of the data sources uncovered were new additions to the CCENDU network, while others were used inconsistently among the sites (e.g., Uniform Crime Reporting Survey). All sources of data are cited when introduced in this report, and for specifics regarding their respective data collection methodologies the original sources are to be consulted.

An overarching characteristic of the uncovered national surveys was their collection of data on substance abuse, dependency and problematic use. Although a marked limitation of such data is discrepancy in definitions¹⁸, national surveys can serve to expand the network's data collection on substance abuse. Although problematic use has not historically been a focus of the network, its incorporation was explored at the 2001 CCENDU annual meeting. Consequently, although limited, data were collected from national Canadian surveys on substance abuse and are presented in this report. Also emerging from CCENDU's 2001 annual meeting and its 2002 meeting were suggestions for expansion of the network's current data indicators (detailed at the end of this section).

NATIONAL SURVEYS

Nationally, the past quarter century in Canada has been characterized by inconsistent survey data collection on substance use and abuse. With few exceptions¹⁹, this is similar at the provincial and municipal levels. Although national data collection has been sporadic, there are several substance use-specific and related national surveys that can be drawn on for information.

It is important to acknowledge that national surveys do not necessarily provide a more accurate depiction of the use and abuse of substances in Canada than local data collection. Inherent weaknesses of national survey data include superficial coverage of complex topics, decontextualization of social life, weak validity, and the inability to measure some topics through a survey. Although some national surveys collect location-specific data, for the most part the survey data is separated from the intricacies of the local site. The CCENDU network takes the position that local-level data collection is necessary to provide a contextualized understanding. However, the disaggregation of national data to the local site level can contribute an additional layer of information to the construction of a localized understanding²⁰. Table 1 identifies key existing and forthcoming national surveys that contain data specific to substance use and abuse.

TABLE 1: Key national Canadian surveys containing data specific to substance use and abuse²¹

YEAR	SURVEY	SOURCE
1978–79	Canada Health Survey	Health and Welfare Canada, <i>The Health of Canadians – Report of the Canada Health Survey</i> (Ottawa: Health and Welfare Canada and Statistics Canada, 1981)
1985	Canada's Health Promotion Survey	Health and Welfare Canada, <i>Canada's Health Promotion Survey</i> (Ottawa: Health and Welfare Canada, 1988)
1985	General Social Survey	Statistics Canada, <i>General Social Survey Analysis Series</i> , Health and Social Support (Ottawa: Statistics Canada, 1985)
1989	National Alcohol and Other Drugs Survey	Health and Welfare Canada, <i>National Alcohol and Other Drugs Survey</i> (Ottawa: Health and Welfare Canada, 1990)
1990	Canada's Health Promotion Survey	Health and Welfare Canada, <i>Canada's Health Promotion Survey 1990 – Technical Reports</i> Stephens, T. & Fowler, G.D. (eds). (Ottawa: Ministry of Supply and Services, 1993)
1991	General Social Survey	Statistics Canada, Millar, W., <i>Trend to a Healthier Lifestyle in Canadian Social Trends</i> , No. 24 – Spring 1992 (Ottawa: Statistics Canada, 1992)
1991	Aboriginal Peoples Survey ²²	Statistics Canada, <i>Aboriginal Peoples Survey</i> (Ottawa: Statistics Canada, 1993)
1993	General Social Survey	Statistics Canada, <i>General Social Survey</i> , analysis prepared by E. Single, J. Brewster, P. MacNeil and J. Hatcher (Ottawa: Canadian Centre on Substance Abuse, 1994)
1994	Canada's Alcohol and Other Drugs Survey	Statistics Canada, <i>Canada's Alcohol and Other Drugs Survey</i> (Ottawa: Statistics Canada, Canadian Centre for Health Information, 1995)
1994–95	National Longitudinal Survey of Children and Youth	Statistics Canada, <i>National Longitudinal Survey of Children and Youth</i> (Ottawa: Statistics Canada, 1994-95)
1994–95	National Population Health Survey	Statistics Canada, <i>National Population Health Survey 1994-95</i> (Ottawa: Statistics Canada, Canadian Centre for Health Information, 1996)
1996–97	National Longitudinal Survey of Children and Youth	Statistics Canada, <i>National Longitudinal Survey of Children and Youth</i> (Ottawa: Statistics Canada, 1996-97)
1996–97	National Population Health Survey	Statistics Canada, <i>National Population Health Survey 1996-97</i> (Ottawa: Statistics Canada, Canadian Centre for Health Information, 1998)
1998	Canadian Campus Survey	Centre for Addiction and Mental Health, <i>Canadian Campus Survey 1998</i> . (Toronto: Centre for Addiction and Mental Health, 1998)
1998–99	National Population Health Survey	Statistics Canada, <i>National Population Health Survey 1998-99</i> (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000)
1998–99	National Longitudinal Survey of Children and Youth	Statistics Canada, <i>National Longitudinal Survey of Children and Youth</i> (Ottawa: Statistics Canada, 1998-99)
2000–01	Canadian Community Health Survey ²³	Forthcoming – Statistics Canada
2000–01	National Longitudinal Survey of Children and Youth	Forthcoming – Statistics Canada
2001	Aboriginal Peoples Survey	Forthcoming – Statistics Canada

OTHER DATA SOURCES

Following CCENDU's data categorization system by indicator type²⁴, key national data sources other than surveys, along with their principal limitations, are identified in Table 2. As noted, CCENDU's systematic review of national data sources identified new sources and confirmed data sources currently used by the network.

TABLE 2: Key national Canadian data sources on substance use and their major limitations

TYPE OF DATA	SOURCE	MAJOR LIMITATIONS
Prevalence	<ul style="list-style-type: none"> National, provincial, local surveys 	<ul style="list-style-type: none"> Limited existence Limited on-going surveys Lack of standardization Survey data often impeded by respondent under-reporting and under-representation of those for whom substance use has the greatest effect (e.g., no fixed address so cannot participate in a telephone survey) Limited capacity for disaggregation to the local level from national surveys
Treatment	<ul style="list-style-type: none"> Residential Care Facilities Survey – Statistics Canada Individual treatment centre records 	<ul style="list-style-type: none"> Available on an annual basis Data may reflect the availability of service rather than treatment need Only available at the national and provincial levels Does not capture information from on-reserve facilities, private sectors, prisons, and some inpatient and outpatient facilities Variation in reporting practices and data collection methods among treatment centres (e.g., differences in collection of data on “drug most frequently used”) Variation in diagnostic practices Data do not capture those who do not seek treatment
Law Enforcement	<ul style="list-style-type: none"> Uniform Crime Reporting Survey – Statistics Canada Adult Criminal Court Survey – Statistics Canada Youth Criminal Court Survey – Statistics Canada Drug seizures – Canada Customs and Revenue Agency Health Canada, Office of Controlled Substances, Drug Abuse System 	<ul style="list-style-type: none"> Information only on unlawful acts that come to the attention of police and for individuals for whom a charge is laid Information only on individuals processed through the court system Information only on individuals processed through the court system Information on types, amounts and purity of drugs seized at Canadian borders may be more reflective of individual law enforcement efforts at supply and demand reduction than actual prevalence Information on types, amounts and purity of drugs seized within Canada by the RCMP and local police agencies may be more reflective of individual law enforcement efforts at supply and demand reduction than actual prevalence
Mortality	<ul style="list-style-type: none"> Statistics Canada, Health Statistics Division 	<ul style="list-style-type: none"> Limited data reliability and validity
Morbidity	<ul style="list-style-type: none"> Local doctor, coroner, medical examiner or hospital records Canadian Institute for Health Information (CIHI) 	<ul style="list-style-type: none"> Limited data reliability and validity Lack of standardization Limited timeliness in availability of national estimates using CIHI data Excessive cost for purchasing data Not 100% Canadian coverage Debate surrounding diagnostic codes attributable to substance use and abuse using the International Classification of Diseases, Injuries, and Causes of Death, 9th revision (referred to as ICD-9 Codes)²⁵
HIV/AIDS, hepatitis C	<ul style="list-style-type: none"> Health Canada Surveillance Reports Needle exchange programs 	<ul style="list-style-type: none"> Available only at local site exchange programs

INDICATORS

This section identifies CCENDU's current drug use indicators and their corresponding definitions. The indicators and definitions were discussed in detail in a workshop session at the 2001 annual meeting and further at the 2002 meeting. Recommendations were also made at the meetings regarding further data collection sources. A summary of the key suggestions is provided in relation to each indicator, noting main actions taken to date. This section concludes with a discussion of the new drug use area – licit drugs – added to the CCENDU data collection areas at the 2001 annual meeting.

Prevalence
<i>Indicates the proportion of the population that is using alcohol and other drugs.</i>
Suggestions
Distinguish between youth and adult use
Include "problem use" and "at-risk use"
Access vintners data
Action
Reporting on both adult and youth use where possible in the national report and in some local reports
Reporting on alcohol and drug abuse data from national surveys in the national report and have disaggregated this data to the local site level where possible
Reporting on the National Longitudinal Survey on Children and Youth
Accessing IMS Health data on prescription drug use
Accessing the World Health Organization Cross-National Study on Health Behaviour in School-Aged Children
Accessing the Canadian Incidence Study of Reported Child Abuse and Neglect
Accessing the Association of Canadian Distillers Annual Statistical Report
Accessing the National Aboriginal Health Organization public opinion poll on health and health care
Accessing the Health of the Off-reserve Aboriginal Population, Statistics Canada survey
Accessing the 2001 National Aboriginal People's Survey
Treatment
<i>Indicates the number of people in public and private treatment in specific alcohol and drug abuse programs.</i>
Suggestions
Include the number and types of clients acquiring treatment
Include data on special populations (e.g., youth)
Include data on program waiting lists
Include data on diversion programs (e.g., drug treatment court)
Include data on methadone maintenance treatment programs
Include data on services available
Include data on costs of treatment services
Include Correctional Service of Canada treatment statistics
Include methadone maintenance treatment data
Action
Reporting on provincial-level treatment centre access data (Residential Care Facilities Survey)
Reporting on usage of the Kids Help Phone and Parent Help Line national programs
In discussion with the Youth Solvent Abuse Committee regarding data collection

Law Enforcement
<i>Indicates the number of drug-related offences, charges and drug seizures (in kilograms).</i>
Suggestions
Note that the definition is strongly influenced by the criminalization of drugs
Include enforcement resources used, such as the proportion of police calls related to alcohol and drugs
Include data from the corrections population (prison and probation)
Include pharmaceutical theft/forgery data
Determine utility of national poll data
Action
Reporting on drug seizures (value and number) in the national report (at the borders)
Reporting on the Uniform Crime Reporting Survey (adults and youth)
Reporting on the Adult Criminal Court Survey
Reporting on the Traffic Injury Research Foundation data
Reporting on Correctional Service of Canada incarceration data
Accessing the Youth Criminal Court Survey
Accessing data sources with the Correctional Service of Canada, Addiction Research Centre
Accessing data from Health Canada, Office of Controlled Substances (HPB 3515 form) (RCMP and local police agency drug seizures within Canada)

Morbidity
<i>Indicates the burden of disease related to alcohol and other drug-related injuries based on diagnosis at the time of hospital separation²⁶.</i>
Suggestions
Include trend and community-level data
Action
Reporting on the most current Canadian Institute for Health Information data (2000–01)

Mortality
<i>Indicates the number of deaths related to alcohol and other drugs.</i>
Suggestions
Include trend and community-level data
Include mortality data within corrections
Action
Reporting on the most current Canadian Institute for Health Information data
Reporting on Statistics Canada, Health Statistics Division data

HIV/AIDS/hepatitis C
<i>Indicates the number of cases of HIV, AIDS and/or hepatitis C associated with injection drug use.</i>
Suggestions
Include treatment centre data for people with AIDS at the provincial and local site levels
Include surveillance data on HIV/AIDS collected by the Centre for Infectious Disease Prevention and Control, Health Canada
Include surveillance data on hepatitis C and hepatitis B collected by the Laboratory Centre for Disease Control, Health Canada
Action
Reporting on the most current HIV/AIDS data
Limited reporting on hepatitis C data

There is a serious absence of attention to and research on problematic licit drug use (psychoactive pharmaceuticals) in Canada. National data on prescription drug use had been collected by Health Canada's Bureau of Drug Surveillance until 1995, but this system is no longer functioning. Currently, some data are collected in some provinces through provincial duplicate/triplicate prescription programs²⁷, but it is limited to the prescription of selected high-potency pharmaceutical products. Overall, there is a large gap in the current understanding of licit drug use and problematic use, including the absence of a universal definition of dependency or abuse.

Further, gender-specific research on prescription and non-prescription use is required. Unlike alcohol and illicit drug use, females generally report higher rates of use of prescription and non-prescription drugs than males, thus increasing their probability for problematic use. With limited availability of mainstream data sources, it is suggested that information be collected through alternative sources such as the dispensing practices of physicians available through IMS Health and pharmaceutical company data (e.g., PURDUE Pharma). Similarly, steroid use is an area of required data collection, as well as the abuse of solvents.

NOTES

- 16 Available data sources are being continuously identified and revised.
- 17 Adult Criminal Court Survey, Uniform Crime Reporting Survey, Canadian Community Health Survey (alcohol), Canadian Institute for Health Information (health expenditure) (morbidity), Statistics Canada, Health Statistics Division (mortality), National Population Health Survey, and Aboriginal Peoples Survey.
- 18 The National Native Alcohol and Drug Abuse Program cites other concerns with national surveys as: "...published survey research rarely discusses the validity and reliability of the survey instruments used... poor response due to apathy or non-participation, western-Aboriginal cultural differences which complicate communications, data collection and interpretation, heterogeneity (of Aboriginal origins) in the grouping which makes up a survey sample, and an overall lack of identification or participation of urban Aboriginal populations" (2) (National Native Alcohol and Drug Abuse Program [1996?]. *Literature Review. Evaluation Strategies in Aboriginal Substance Abuse Programs: A Discussion*. Ottawa: First Nations and Inuit Health Branch.)
- 19 See, for example, the Centre for Addiction and Mental Health biennial Ontario Student Drug Use Survey that spans over two decades; the Centre for Addiction and Mental Health Monitor: Addiction & Mental Health Indicators annual survey of Ontario Adults, which commenced in 1977; and the Nova Scotia Student Drug Use Survey, 1996, 1998 and 2000.
- 20 The accuracy of statistical analysis is affected by the size of sampling variation. For more information regarding survey sample data used in this report, please refer to the complete review of the methodology and confidence intervals of the original surveys (see *Appendix A*).
- 21 Surveys are cited as either the original data source or tabulated reports.
- 22 Given the dated nature of this survey, it is not discussed in this report. Note the forthcoming release of data from the 2001 Aboriginal Peoples Survey.
- 23 National surveys are typically problematic to disaggregate to the provincial and local levels. The Canadian Community Health Survey, for the first time, will provide data at the provincial and sub-provincial (health region) levels for all provinces and territories. It is also collecting select data through face-to-face interviews.
- 24 See Canadian Community Epidemiology Network on Drug Use (2000). *How to Set up a Drug Use Epidemiology Network in Your Community*. Ottawa: Canadian Centre on Substance Abuse.
- 25 The 2000–01 data presented in this report utilize the ICD-9 codes. The 2001–02 data will utilize the 10th revision of the codes (ICD-10 CA).
- 26 Reason for treatment/discharge from a hospital.
- 27 The participating provinces are: Alberta, British Columbia, Manitoba, Nova Scotia, Saskatchewan, and Yukon (participates in the Alberta program).

National data on substance use and abuse

This section draws on Canadian surveys, data sources and select research reports that outline *prevalence, treatment, law enforcement, morbidity, mortality* and *HIV/AIDS/hepatitis C* and associated factors related to substance use. When data permit, comparisons are made between females and males. The most recent available national-level data are presented; note that at times it dates back to the mid-1990s.

Each division of this section of the report commences with a snapshot of data highlights. Focus is given to both recent (post-1997) and older data, whose age points to areas of future research need. To reiterate, the purpose of this report is to highlight national data sources (i.e., surveys) and the reader is encouraged to access the original sources for further information and access to data collection methodologies. In instances where national data sources have been analyzed by the authors of this report, the reader is encouraged to access the CCENDU Web site at www.ccsa.ca for further analyses and regular data updates.

This report focuses primary on national data sources, noting that where possible these sources have been disaggregated to the local and/or provincial levels and distributed to the CCENDU sites for inclusion in their local reports. This includes: 1996–97 and 1998–99 National Population Health Survey data (Vancouver, Toronto and Montreal); 1999 Residential Care Facilities Survey (provincial level); 2000 and 2001 Uniform Crime Reporting survey (local and provincial level); 2000–01 Adult Criminal Court Survey (provincial level); 2001 Canadian Community Health Survey (local level); and CIHI prescription drug expenditure data (provincial level). Adhering to general Statistics Canada data analysis practices, and to coincide with data presented in the *1999 Canadian Profile*²⁸, the national survey data reported here are weighted.

NOTES

- 28 Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.



Prevalence: Alcohol

Post-1997

- A 2002 survey of First Nations people living on-reserve concluded that slightly more than half of respondents felt that the most important action women could take to have a healthy baby was to cut down/stop alcohol use.
- From 2000 to 2001 there was a slight increase in per-capita consumption of domestic and imported beer in Canada, based on sales data. Earlier, there was a steady decrease from 1990 to 1995, and relative stability until 2000. From 1999 to 2000, the consumption of spirits and wine both increased by approximately 5%.
- In 2001, roughly 3.6 million Canadians admitted to driving after consuming alcohol in the past month, and 1.6 million reported having driven in the past year when they thought they were over the legal limit. This is a notable decrease from 1998. Drivers between 19 and 24 years of age were most likely to report driving after drinking.
- In 2000–01, nearly three times as many males as females reported heavy drinking (five or more drinks on one occasion) 12 or more times a year. There was similarity between the sexes in drinking this amount less than 12 times a year.
- There was a decrease from 1994–95 to 1998–99 in female alcohol use during pregnancy.
- Between 1994–95 and 1998–99 there was a slight yet steady increase in males and females who reported drinking in the past 12 months. On average, males reported a 9% higher frequency than females.
- In 1998, female undergraduate university students, in comparison to their male counterparts, reported a

slightly higher frequency of alcohol consumption since the start of the current school term, as well as over their lifetime, but their intake levels were lower than males.

- In 1998–99, females 15–19 years of age slightly exceeded males in their reported consumption of alcohol in the past year. In all other age categories males exceeded females, with the greatest difference in the 80 plus age category.
- As age increased in 1998–99, so too did the percentage of individuals who reported not drinking in the past 12 months and the percentage of lifetime abstainers.
- A 1998 general review by the National Native Alcohol and Drug Abuse Program concluded that the use of legally obtained and illegally produced or sold alcohol remains a major issue affecting all Aboriginal communities.

1997 and Prior

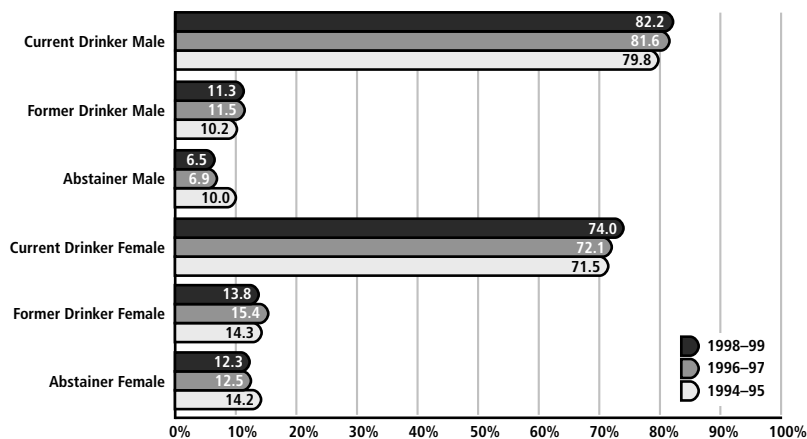
- In 1994 females reported a greater need for attention to alcohol-related issues in Canadian society than males, such as favouring alcohol-warning labels and not supporting the sale of alcohol in corner stores.
- Nearly twice as many females as males in 1993 reported experiencing problems in the past 12 months as a result of other people's drinking.
- In 1993 nearly twice as many males as females reported an alcohol-related problem, such as physical health.

Prevalence: *Alcohol*

Alcohol Use

According to the 1998–99 *National Population Health Survey* (NPHS), the majority of Canadians aged 15 and older (78.0%) used alcohol at least once in the past year (current drinker), 12.6% used alcohol during their lifetime, but not in the past year (former drinker), and 9.5% had never used alcohol (abstainer)²⁹. From 1994–95 to 1998–99 there was an increase in females and males who reported drinking within the past year: 71.5% of females reported in 1994–95 and 74% in 1998–99; 79.8% of males reported in 1994–95 and 82.2% in 1998–99. The greatest difference between the sexes was in the category of current drinkers, whereas proportional differences between male and female former drinkers and abstainers were less pronounced. These figures are similar to the 1996–97 and 1994–95 NPHS³⁰ findings (see *Figure 1*).

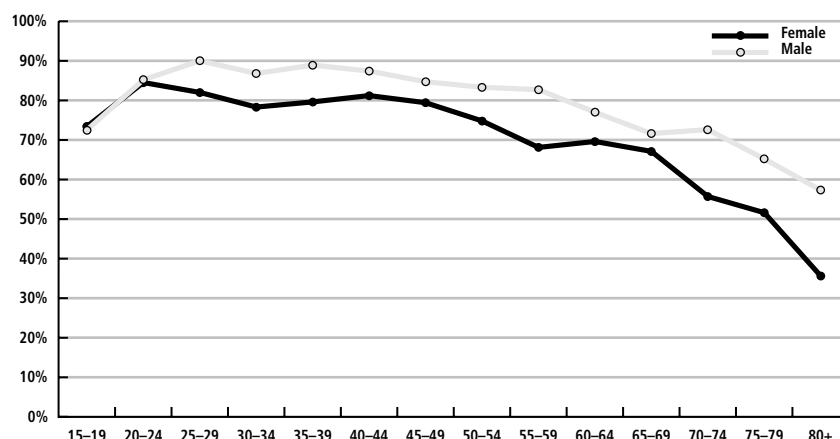
FIGURE 1: Percentage of female and male type of drinker, by sex, among those 15 and older, Canada, NPHS, 1994–95, 1996–97, 1998–99³¹



According to the 1998–99 *National Longitudinal Survey of Children and Youth*³², 77.5% of respondents who identified themselves as the person most knowledgeable about the household child (93.5% were female) reported having consumed alcohol in the past year. It was also reported that 82.9% of their spouses drank alcohol within the past year. These findings are similar to the NPHS results.

As for the percentage of individuals who reported drinking in the past 12 months in the 1998–99 NPHS by age, there was relative stability between the ages of 20 and 44 (84.4%), and then a steady decrease from age 45 onward: age 45–49 (81.9%) and age 80 plus (44.6%). The 15 to 19 age grouping of females and males were nearly identical in their reported drinking, which averaged 73%. As for the percentage of individuals who reported drinking in the past 12 months by sex, there was also similarity. Two differences, however, are noteworthy. First, drinking within the past year remained stable until about age 44 for males (in comparison to 49 for females), followed by a steady decrease (excluding the youngest category of 15–19 year olds). And females reported a considerably lower level of alcohol consumption in the 80 plus age category than did males (females 35.6% and males 57.3%) (see *Figure 2*). Of interest is that females in the 15–19 age category scored a slightly higher consumption in comparison to males (73.4% of females and 72.5% of males)³³.

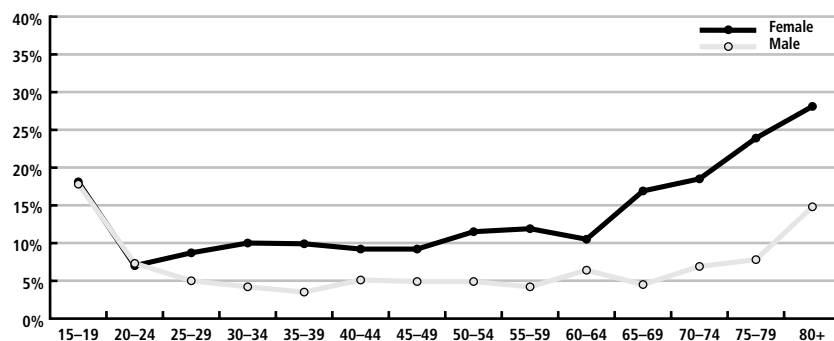
FIGURE 2: Percentage of females and males reporting consumption of alcohol in the past 12 months, among those 15 and older, Canada, NPHS, 1998–99³⁴



There was a similar age-specific trend among former drinkers: as age increased so did the percentage of individuals who did not drink: 20–24 (8%) and 80 plus (32.8%). Further, a greater percentage of females were former drinkers in all age categories, except: 15–19 (9.6% male and 8.5% female), 65–69 (23.9% male and 16% female), and 75–79 (27% male and 24.5%).

Among abstainers there was a similar trend, that is, as age increased so did the percentage of abstainers: 20–24 (7.1%) and 80 plus (22.6%). The lowest percentage of abstainers was between 20–49 years of age (average 7%). Examining this trend by sex, we see that as age increased so did the variation in abstinence. Males consistently reported being less frequent abstainers, with the greatest difference among the oldest age groups (age 75–79: 7.8% males and 23.9% females; age 80 plus: 14.8% males and 28.1% females) (see Figure 3).

FIGURE 3: Percentage of females and males reporting abstinence from alcohol, among those 15 and older, Canada, NPHS, 1998–99³⁵



Heavy Drinking

According to the 2000–01 *Canadian Community Health Survey*³⁶ data on the frequency of drinking five or more drinks on one occasion³⁷ 12 or more times in the past year, by current drinkers 15 years of age and older, 29% of males and only 11.4% of females drank at this level. Similar disparity between the sexes was found among individuals who reported having never had five or more drinks on one occasion (45.1% male and 67.3% female). However, there was similarity in the number of individuals who reported having

five or more dinks on one occasion less than 12 times in the past year (25.9% male and 21.3% female)³⁸ (see Table 3).

TABLE 3: Percentage of females and males drinking five or more drinks on one occasion, among those 15 and older, Canada, CCHS 2000–01³⁹

DRINKING	FEMALE	MALE
Never 5 or more drinks on one occasion	67.3 %	45.1%
5 or more drinks on one occasion, less than 12 times a year	21.3%	25.9%
5 or more drinks on one occasion, more than 12 times a year	11.4%	29.0%
TOTAL	100%	100%

Examining the frequency of drinking five or more drinks on one occasion more than 12 times a year, by age, we see that the greatest variation was between the sexes in the 20–34 age category (male 39.5%; female 17.9%), while the 65 and older category revealed the least variation (male 9.2%; female 1.4%). Conversely, for frequency of drinking five or more drinks on one occasion less than 12 times a year, by age, there was least variation between the sexes in the 20–34 age category (male 30.7%; female 32.8%), and the 45 to 64 age category revealed the most variation (male 23.1%; female 13.6%).

Alcohol Use on Campus

Drawing on the 1998 *Canadian Campus Survey*⁴⁰, there are comparatively high reports of alcohol consumption and related problems among university students. It was reported that 87.5% of female and 85.4% of male students used alcohol in the past 12 months. A similar finding was made with regard to lifetime use, averaging 91.5% for both sexes (92.4% female and 90.6% male). On average, women’s weekly alcohol intake since the start of the Fall semester was half that of males (females averaged 3.9 drinks and males 7.5). The percentage of women reporting consuming five or more drinks on a single occasion at least once during the current school year was 56.1%, and 25.2% reported consuming eight or more drinks on a single occasion at least once during the current school year. Again, these rates were considerably higher for males, with 70.6% consuming five or more drinks on a single occasion and 46.5% reporting eight or more.

Examining mental health, we see that 35.2% of females and 23.6% of males reported impaired mental health as a consequence of their alcohol consumption. Further, 41.1% of women reported harmful drinking in the past 12 months and 29.3% reported dependent drinking⁴¹. The rates are just slightly higher for males (45.2% harmful drinking and 31.8% dependent drinking).

Alcohol Use and Pregnancy

Examining the prevalence of alcohol use during pregnancy, the 1994–95 *National Population Health Survey* and the 1994–95 *National Longitudinal Survey of Children and Youth*⁴² similarly reported that between 17% and 25% of women drank alcohol at some point during their pregnancy, and between 7% and 9% drank alcohol throughout their pregnancy⁴³. For those who did drink, 94% reported consuming less than two drinks on the days they drank, 3% had between three and four drinks, and less than 3% drank five or more drinks on each occasion. According to the 1998–99 NLSCY⁴⁴, it would appear that the prevalence of alcohol use during pregnancy has decreased since the 1994–95 surveys were done. In 1998–99 it was reported that 14.4% of women drank at some point during their pregnancy and 4.9% drank throughout their entire pregnancy.

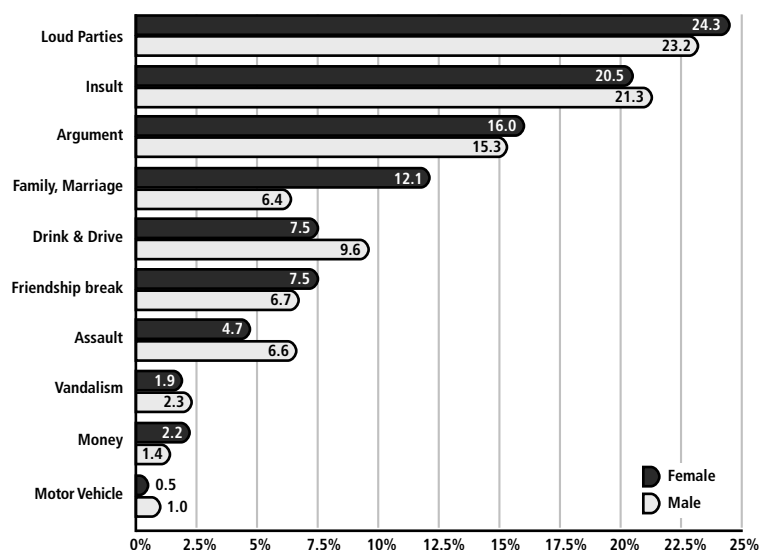
The 2002 *Survey of First Nations People Living On-Reserve*⁴⁵ asked respondents⁴⁶ what actions they felt were most important for women to take to have a healthy baby, and 53% cited cutting down or stopping alcohol use (second most prevalent answer).

It should be noted that data from the Canadian Community Health Survey – Cycle 1.1 on alcohol use during pregnancy is available, though it was not accessible for this report. It will be reported on, in addition to other publications, in the forthcoming Health Canada publication, *Women's Health Surveillance Report*, in a chapter on women and substance use problems⁴⁷.

Consequences of Alcohol Use

In accounting for gender as a determinant of health and its relation to substance use and abuse, the effects of others' use on individuals' lives needs to be considered. According to the 1993 *General Social Survey* and women's and men's accounts of problems they experienced in the past 12 months as a result of other people's drinking, there was considerable difference between the sexes. The greatest disparity was in the area of family problems or marriage difficulties due to someone else's drinking (12.1% reported by females and 6.4% by males), followed by drinking and driving (7.5% female and 9.6% male) and assault (4.7% female and 6.6% male)⁴⁸ (see Figure 4). Further, according to Single's analysis of public opinion data on alcohol issues collected in the 1994 *Canada's Alcohol and Other Drugs Survey*⁴⁹, adult females consistently favoured greater need for attention to alcohol-related issues. More specifically, 76.2% of females and only 57.1% of males reported being against alcohol in corner stores; 75.1% of females and 63.8% of males favoured alcohol warning labels; 69.3% of females and 59.7% of males favoured greater alcohol treatment availability; and 29.8% of females and 20.8% of males favoured higher alcohol taxes⁵⁰.

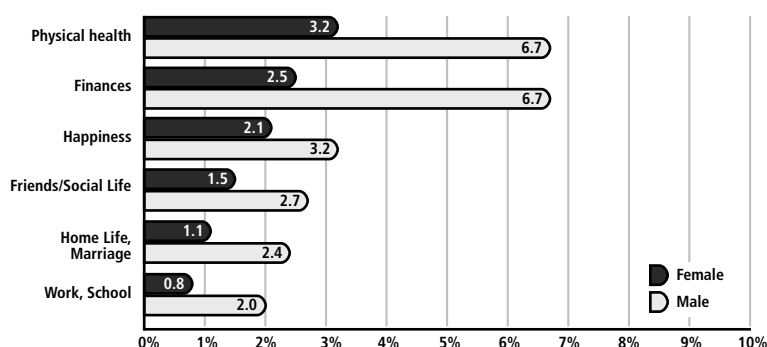
FIGURE 4: Percentage of past-year drinkers reporting alcohol-related problems as a result of others' drinking, by sex, among those 15 and older, Canada, GSS, 1993⁵¹



Examining the effects of alcohol use on the drinker's life, according to the 1993 *General Social Survey*⁵², we see that 6.2% of females and 11% of males 15 and older who consumed alcohol in the past year reported the occurrence of an alcohol-related problem⁵³. The greatest concentration for females and males was in the areas of physical

health, finances and happiness, with comparatively higher rates for males (physical health 6.7% male and 3.2% female; finances 6.7% male and 2.5% female; happiness 3.2% male and 2.1% female). (See Figure 5).

FIGURE 5: Percentage of past-year drinkers reporting alcohol-related problems, by sex, among those 15 and older, Canada, GSS, 1993⁵⁴



The 1998 *General Review Report of the National Native Alcohol and Drug Abuse Program (NNADAP)*⁵⁵ collected data on the problematic role of alcohol in Aboriginal communities through a number of methods. These included: key informant interviews both within First Nations and Health Canada to determine the major issues that were of concern to the key stakeholders; mail-out surveys to NNADAP workers, First Nations and Inuit leadership, health workers at the community level, social service workers at the community level and senior management of treatment centres; randomly selected field visits to 37 communities; and a literature review. It was concluded that the use of legally obtained and illegally produced or sold alcohol remains a major issue that affects the whole of Aboriginal communities.

Sales and Consumption of Alcohol

The 2001 *Annual Statistical Bulletin of the Brewers*^{56, 57} reports a slight increase in the sale of domestic beer between 2000 and 2001 (1.7%). Bottle sales accounted for 69.3% of the market, cans 19.5% and draught 11.2%. Per-capita consumption of domestic and imported beer in Canada, based on sales data, increased slightly to 67.5 litres per person in 2001 from 67.35 in 2000. From 1990 to 1995, there had been a steady decrease in per-capita consumption of domestic and imported based on sales, which have since remained comparatively stable (see Table 4). The consumption of spirits increased by 4.9% and wine consumption increased by 5.8% in 2000 compared to 1999⁵⁸.

TABLE 4: Per-capita consumption of domestic and imported beer, based on sales (in litres), Canada, Brewers Association of Canada, 1999–2000

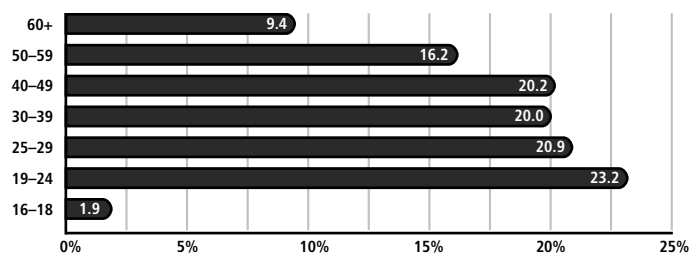
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
75.01	72.61	69.27	68.20	68.30	67.80	66.66	66.17	67.58	68.04	67.35	67.50

Impaired driving

According to the 2001 *Road Safety Monitor: Drinking and Driving*⁵⁹, published by the Traffic Injury Research Foundation, in 2001, 85% of Canadian drivers believed drinking and driving was a serious road safety issue. Nonetheless, 16.7% of all drivers surveyed reported having driven a vehicle within two hours of consuming alcohol sometime in the past 30

days. This translates into 3.6 million Canadians admitting to driving after drinking in the past month. Further, 7.3% of all drivers (1.6 million Canadians) reported having driven at some point during the past year when they were likely over the legal limit. Drivers between 19 and 24 were most likely to report driving after drinking (23%), followed by those 25–29 (20.9%) and 40–49 (20.2%). Less than 2% of the youngest group of drivers (16 to 18) reported driving after drinking (*see Figure 6*).

FIGURE 6: Percentage of individuals reporting driving within two hours of consuming alcohol, by age, Canada, TIRF, 2001⁶⁰



Comparatively, between 1998 and 2001, there has been a 9% reduction in the percentage of drivers who reported driving after drinking and a 16% decrease in the percentage of drivers who reported driving when they thought they were over the legal limit⁶¹.

NOTES

- 29 Statistics Canada, *National Population Health Survey, 1998–99* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell. The NPHS is a longitudinal survey with a cross-sectional version. The latter was obtained for this report.
- 30 Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 31 Statistics Canada, *National Population Health Survey, 1998–99* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell; Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 32 Statistics Canada, *National Longitudinal Survey of Children and Youth, 1998–99*. (Ottawa: Statistics Canada). Analysis and interpretation by K. Garabedian and C.A. Dell.
- 33 The accuracy of statistical analysis is affected by the size of sampling variation. When taking the sampling variation or error into account, some statistical estimates may not be statistically significant. Therefore, caution should be exercised in interpretation of comparative differences calculated with sample survey data in this report. For more information regarding survey sample data used in this report, please refer to the complete review of the methodology and confidence intervals of the original surveys (see Appendix A).
- 34 Statistics Canada, *National Population Health Survey, 1998–99*, (Ottawa, Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell.
- 35 Statistics Canada, *National Population Health Survey, 1998–99*, (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell.
- 36 Statistics Canada, *Canadian Community Health Survey, 2000–01*. (Ottawa: Statistics Canada, 2002). CANSIM II, Table 105-0031.
- 37 Consuming five or more drinks on one occasion is identified as heavy drinking. Note that there is debate surrounding whether the minimum of five drinks should be used for both males and females.
- 38 The above percentages exclude 1.2% of males and 0.9% of females who did not report their drinking frequency.
- 39 Statistics Canada, *Canadian Community Health Survey, 2000–01*. (Ottawa: Statistics Canada, 2002). CANSIM II, Table 105-0031.
- 40 Gliksman, L., A. Demers, E. Adlaf, B. Newton-Taylor and K. Schmidt (2000). *Canadian Campus Survey, 1998*. Toronto: Centre for Addiction and Mental Health.
- 41 Harmful drinking indicates the percentage reporting at least one of four indicators (felt guilty after drinking, been unable to remember events after drinking, involved in a drinking-related injury, others have suggested reduction in drinking). Dependent drinking indicates the percentage reporting at least one of three indicators (been unable to stop drinking, failed to perform expected activities, need a morning drink).
- 42 Statistics Canada, *National Longitudinal Survey of Children and Youth, 1994–95*. (Ottawa: Statistics Canada).
- 43 Roberts, G. and J. Nanson (2000). *Best Practices. Fetal Alcohol Syndrome/Fetal Alcohol Effects and the Effects of Other Substance Use During Pregnancy*. Ottawa: Health Canada, Canada's Drug Strategy Division.
- 44 Statistics Canada, *National Longitudinal Survey of Children and Youth, 1998–99*. (Ottawa: Statistics Canada). Analysis and interpretation by K. Garabedian and C.A. Dell.
- 45 EKOS Research Inc. (2002). *Fall 2002 Survey of First Nations People Living On-Reserve*. Ottawa: EKOS Research Inc.
- 46 Asked of individuals 40 years of age and younger.
- 47 Cormier, R.A., C.A. Dell, N. Poole, and Bette Reimer (forthcoming). *Women's Health Surveillance Report*. Ottawa: Health Canada.
- 48 Statistics Canada, *General Social Survey*, analysis prepared by E. Single, J. Brewster, P. MacNeil and J. Hatcher in Canadian Centre on Substance Abuse, *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse, 1994.
- 49 Statistics Canada, *Canada's Alcohol and Other Drugs Survey, 1994* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 1995).
- 50 Single, E. (1997). Public opinion on alcohol and other drug issues. In P. MacNeil and I Webster (eds.), *Canada's Alcohol and Other Drugs Survey 1994: A Discussion of the Findings* (Vol. Cat.: H39-388/1-1994E). Ottawa: Ministry of Public Works and Government Services Canada.

- 51 Statistics Canada, *General Social Survey*, analysis prepared by E. Single, J. Brewster, P. MacNeil and J. Hatcher (Ottawa: Canadian Centre on Substance Abuse, 1994) in Canadian Centre on Substance Abuse, *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse, 1999.
- 52 Ibid.
- 53 A problem is identified as: friends, social life, physical health, happiness, home life/marriage, work, school, and finances. It does not include drinking and driving.
- 54 Statistics Canada, *General Social Survey*, analysis prepared by E. Single, J. Brewster, P. MacNeil and J. Hatcher in Canadian Centre on Substance Abuse, *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse, 1999.
- 55 National Native Alcohol and Drug Abuse Program [2000?]. *National Native Alcohol and Drug Abuse Program. General Review. 1998. Final Report*. Ottawa: First Nations and Inuit Health Branch.
- 56 The information presented here includes recorded consumption only, and not consumption arising from U-Brews or home brewing.
- 57 Brewers Association of Canada, (2002). *2001 Annual Statistical Bulletin of the Brewers*. Ottawa: Brewers Association of Canada.
- 58 Ibid.
- 59 Traffic Injury Research Foundation, (2001) *The Road Safety Monitor. Drinking and Driving*. Ottawa: Traffic Injury Research Foundation. The Road Safety Monitor is an annual public opinion survey by the Traffic Injury Research Foundation (TIRF) that takes the pulse of the nation on key road safety issues by means of a comprehensive telephone survey of a random, representative sample of Canadian drivers.
- 60 Ibid.
- 61 Although these statistics are promising, according to the TIRF National Fatality Database the proportion of fatally injured drivers who had been drinking has not changed substantially over the past several years.



Prevalence: Illicit Drugs

Post-1997

- In 2002, a survey of First Nations people living on-reserve concluded that avoiding marijuana was the fifth most important action suggested by respondents that women could take to have a healthy baby.
- In 2000, 17.7% of drivers admitted to driving within two hours of taking some type of drug that was potentially impairing. Of the respondents, 0.9% admitted to driving while taking illegal drugs and 1.5% while consuming marijuana.
- In 1998–99, slightly more than one-fifth of 14-year-olds stated that all or most of their friends had tried marijuana. There was minor variation by sex.
- According to the 1998 General Review Report of the National Native Alcohol

and Drug Abuse Program, the use of illegal drugs is a rising and pernicious concern at the Aboriginal community level.

- In 1998, approximately one-tenth of university undergraduate students reported the use of illicit drugs in the past 12 months (not including cannabis), and nearly one-third reported cannabis use. Males reported a somewhat higher use than females.

1997 and Prior

- In 1993 and 1994 the reported rate of illicit drug use in the past year was higher among males than females. Cannabis was the most frequently reported drug used by both sexes. In 1994 the smallest disparity between the sexes was for cocaine use and in 1993 it was for cocaine and LSD, speed or heroin.

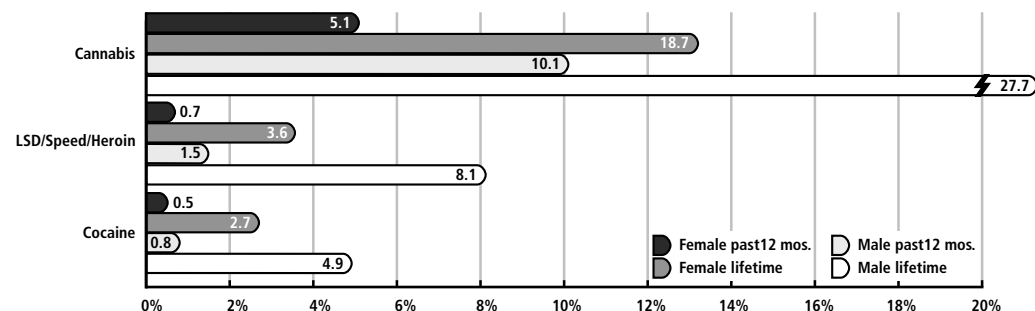
Prevalence: *Illicit Drugs*

Illicit Drug Use

Data from the 1994 *Canada's Alcohol and Other Drugs Survey* shows that the percentage of females aged 15 and older reporting use of selected illicit drugs in the past year was: 5.1% cannabis, 0.7% lysergic acid diethylamide (LSD), speed or heroin, 0.5% cocaine. Comparing these proportions to data on lifetime use of illicit drugs from the same survey, we see a slight decrease in the disparity between rates of use in the three categories: 18.7% cannabis, 3.6% LSD, speed or heroin, 2.7% cocaine. There was disparity between the sexes in all categories except cocaine for use in the last year, with males reporting 10.1% cannabis, 1.5% LSD, speed or heroin, 0.8% cocaine. Similarly, data on lifetime use show disparity between the sexes, with males reporting: 27.7% cannabis, 8.1% LSD, speed or heroin, 4.9% cocaine⁶² (see Figure 7).

In comparison, the 1993 *General Social Survey* reported somewhat lower levels of use of illicit drugs in the past year by females 15 years of age and older: 2.5% cannabis, 0.2% LSD, speed or heroin, 0.2% cocaine. In both surveys, cannabis was by far the most prevalent illicit drug used. For males, the rates were also notably lower than in the 1994 survey: 5.9% cannabis, 0.4% cocaine, and 0.4% LSD, speed or heroin⁶³.

FIGURE 7: Percentage of females and males reporting use of selected drugs in the past year and in their lifetime, among those 15 and older, Canada, CADS, 1994⁶⁴



More recent, the 1998 *Canadian Campus Survey*⁶⁵ examined the use of illicit drugs among university undergraduate students. It was found that 8.9% of female and 11.7% of male students reported the use of illicit drugs in the past 12 months (not including cannabis), and 28% of females and 29.6% of males reported cannabis use.

The 1998–99 *National Longitudinal Survey of Children and Youth – Cycle 3*⁶⁶, asked youth 14 and 15 years of age how many of their friends had tried marijuana: 8% stated all their friends had tried marijuana, 15.3% most of their friends, 30.8% a few of their friends, and 46% none of their friends. There was minor variation by sex. The survey also asked 12 and 13 year olds the number of friends they had who tried cannabis products: 0.8% stated all their friends had tried cannabis products, 3% most of their friends, 23.2% a few of their friends, and 73% none of their friends. Again, there was minor variation by sex. The considerably lower numbers for 12 and 13 year olds may be explained in part by the different wording of the question.

Consequences of Illicit Drug Use

The 2002 *Survey of First Nations People Living On-Reserve*⁶⁷ asked respondents⁶⁸ what things they felt were the most important actions women could take to have a healthy baby, and 14% reported that women should avoid using marijuana (fifth most common answer). According to the 1998 *General Review Report of the National Native Alcohol and Drug Abuse Program*⁶⁹, the use of illegal drugs is a rising and pernicious concern at the Aboriginal community level.

Impaired Driving

According to *The Road Safety Monitor: 2002*⁷⁰, a survey of Canadian drivers designed to acquire information on road safety issues and driving practices, driving while impaired by drugs is seen as a serious road safety issue. However, the use of drugs (and medications) that could affect driving is quite common. Survey respondents indicated that over the past 12 months, 17.7% admitted to driving within two hours of taking some type of drug that was potentially impairing. This translates into 3.7 million Canadians driving at least once in the past year after taking a potentially impairing drug. Driving while taking illegal drugs is the least common (0.9%), followed by marijuana (1.5%), prescription medication (2.2%) and over-the-counter drugs (15.9%).

NOTES

62 Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health, (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.

63 Ibid.

64 Ibid.

65 Gliksman, L., A. Demers, E. Adlaf, B. Newton-Taylor and K. Schmidt, (2000). *Canadian Campus Survey, 1998*. Toronto: Centre for Addiction and Mental Health.

66 Statistics Canada, *National Longitudinal Survey of Children and Youth, 1998–99*. (Ottawa: Statistics Canada). Analysis and interpretation by K. Garabedian and C.A. Dell.

67 EKOS Research Inc. (2002). *Fall 2002 Survey of First Nations People Living On-Reserve*. Ottawa: EKOS Research Inc.

68 Asked of individuals 40 years of age and younger.

69 National Native Alcohol and Drug Abuse Program [2000?]. *National Native Alcohol and Drug Abuse Program. General Review. 1998. Final Report*. (Ottawa: First Nations and Inuit Health Branch).

70 Beirness, D., H. Simpson and K. Desmond (2003). *The Road Safety Monitor: 2002. Drugs and Driving*. Ottawa: Traffic Injury Research Foundation.

Prevalence: Licit Drugs

Post-1997

- From 1975 to 2002, there was an increase in expenditure for prescribed drugs (in current dollars and inflation adjusted) from \$770.6 million to \$14.6 billion and an increase for non-prescribed drugs from \$305.6 million to \$3.6 billion.
- In 1975, retail purchases of prescribed and non-prescribed drugs accounted for 9% of all health expenditures, whereas in 2000 they accounted for 15%, and are forecast to account for 16% in 2002.
- In 2001, an average family utilized 30 prescriptions, translating into a cost of \$1,209.58 per family.
- From 1994–95 to 1998–99, females reported consistently higher use of select prescription and non-prescription drugs than males (tranquillizers, anti-depressants, opioid analgesics, sleeping pills, diet pills) in the past month. Specifically from 1996–97 to 1998–99, the most substantial increase was in the use of anti-depressants. Males, however, reported a decrease in use over the same time period, with the exception of a very slight increase in use of opioid analgesics and stability in use of diet pills.
- In 1998–99, one-quarter of women reported having taken medication during their pregnancy and one-third reported having taken over-the-counter drugs.
- In 1998, the General Review Report of the National Native Alcohol and Drug Abuse Program concluded that prescription drug abuse requires examination at the Aboriginal community level.

Prevalence: *Licit Drugs*

Licit Drug Use

Analysis of the 1998–99 *National Population Health Survey*⁷¹ found that the percentage of females aged 15 and older reporting past-month use of selected non-prescription and prescription drugs increased from 1996–97 to 1998–99 in all categories (tranquillizers, anti-depressants, opioid analgesics, sleeping pills), with the exception of diet pills, which remained constant (0.7%). The most substantial increase was in the use of anti-depressants: 4.7% of females reported use in 1996–97 and 5.9% in 1998–99 (see Table 5). Unlike females, from 1996–97 to 1998–99 males reported an increase in only one category of licit drug use – opioid analgesics (from 4.1% in 1996–97 to 4.2% in 1998–99) and stability in the use of diet pills (2.5%).

In 1998–99, females reported consistently higher use than males in all categories of select prescription and non-prescription drugs, ranging from 0.7% of females and 0.1% of males reporting diet pill use, to 5.9% of females and only 2.5% of males reporting the use of anti-depressants. Review of the data across the three time periods (1994–95, 1996–97, 1998–99) reveals a steady increase in use for females, and substantially less so for males, with some decreases identified for males in 1998–89. Note that data from the Canadian Community Health Survey – Cycle 1.1 on licit drug use is available, though it was not accessible for this report. It will be reported on, in addition to other publications, in the forthcoming Health Canada publication, *Women's Health Surveillance Report*, in a chapter on women and substance use problems⁷².

General trends in the National Population Health Surveys between females and males are comparable to those found in the 1994 *Canada's Alcohol and Other Drugs Survey*. In 1994, females 15 years of age and older reported consistently higher rates of select prescription and non-prescription use than males in all categories, with greatest disparity between the two sexes in anti-depressant use (females 4.2% and males 1.7%)⁷³.

TABLE 5: Percentage of females and males reporting non-prescription and prescription drug use in the past month, among those 15 and older, Canada, NPHS, 1994–95, 1996–97 and 1998–99⁷⁴

PERCENT OF RESPONDENTS USING THE DRUG IN THE PAST MONTH	1994–95	1996–97	1998–99
Tranquillizers			
Females	3.4	3.4	3.5
Males	1.8	2.0	1.9
Diet Pills			
Females	0.3	0.7	0.7
Males	0.1	0.3	0.1
Anti-depressants			
Females	3.8	4.7	5.9
Males	1.8	2.5	2.5
Opioid analgesics			
Females	4.9**	5.4**	5.8*
Males	3.6**	4.1**	4.2*
Sleeping pills			
Females	3.6	4.0	4.8
Males	1.9	2.9	2.7

*Codeine only **Codeine, Demerol or morphine

According to the 1998–99 *National Longitudinal Survey of Children and Youth*, 26.1% of women reported having taken medication during their pregnancy, with 7.3% having taken medication throughout their pregnancy. Further, 33% of women reported having taken over-the-counter drugs during their pregnancy, with 14.7% having taken them throughout their pregnancy.

The 1998 *General Review Report of the National Native Alcohol and Drug Abuse Program*⁷⁵ concluded that prescription drug abuse requires examination at the Aboriginal community level.

Health Care Expenditures

Although not a direct measure of prevalence, figures on health care expenditures for licit prescription and non-prescription drugs can offer some insight. The Canadian Institute for Health Information (CIHI), National Health Expenditure Database⁷⁶, gathers such data. Information is collected by CIHI on expenditures for prescribed and non-prescribed drugs in retail stores. Prescribed drugs are sold in retail stores under the Food and Drug Act and require a prescription. Non-prescribed drugs are also sold in retail stores, and include both over-the-counter drugs (therapeutic drug products not requiring a prescription) and personal health supplies (items used primarily to promote or maintain health, such as oral hygiene products). Drugs dispensed in hospitals and other institutions are not accounted for in this database.

Health expenditure data are available from 1975 to 2002⁷⁷. During this time period, the expenditure for prescribed drugs increased from \$770.6 million in 1975 to \$14.6 billion in 2002 (see Figure 8)⁷⁸. In comparison, the expenditure for non-prescribed drugs increased by 11.8% (\$305.6 million in 1975 to \$3.6 billion in 2002) (see Figure 9).

FIGURE 8: Health expenditures for prescribed drugs by use of funds, current dollars, Canada, CIHI, 1975–2002⁷⁹

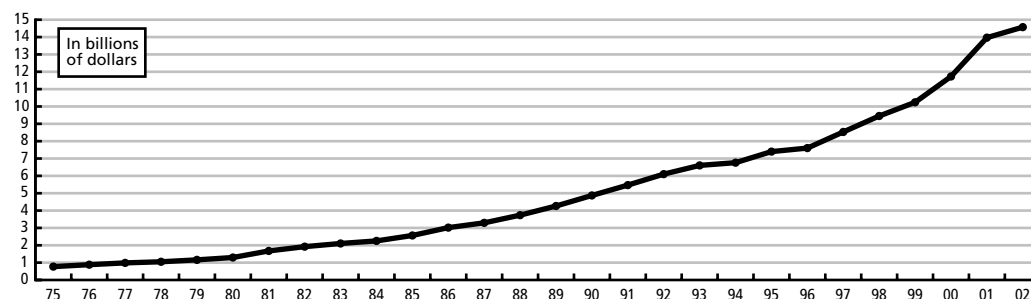
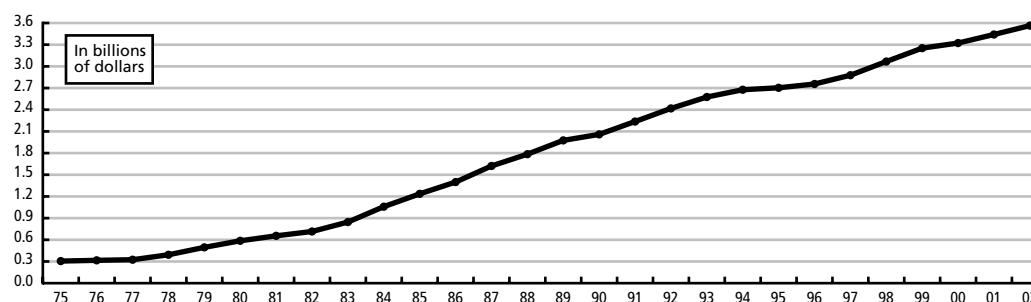
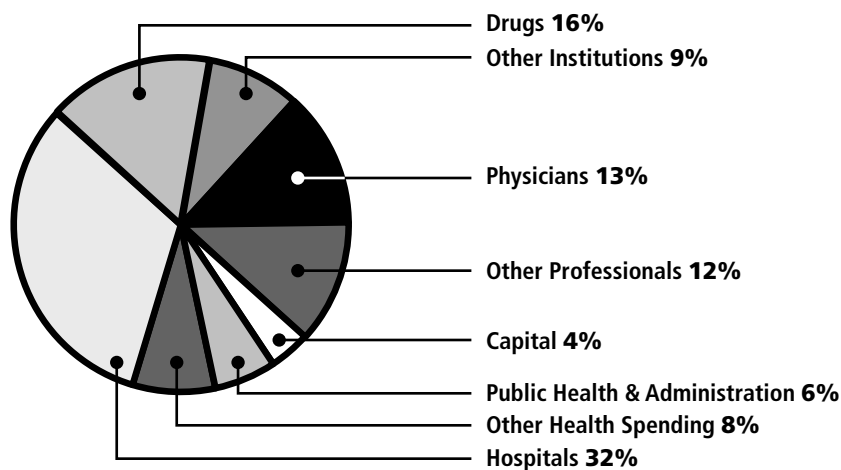


FIGURE 9: Health expenditures for non-prescribed drugs by use of funds, current dollars, Canada, CIHI, 1975–2002⁸⁰



In comparison with all health expenditures⁸¹, retail drug expenditures were forecast to rank second after hospital expenditures in 2002 (*see Figure 10*). In 1975 drugs accounted for 8.8% of all health expenditures, whereas in 2000 they accounted for 15.4%, and in 2002 they are forecast to account for 16.2%.

FIGURE 10: Percentages of total health expenditure by use of funds, Canada, CIHI, forecast 2002



IMS Health⁸² reports that in 2001, with a mean family size of three individuals, there was an average of 10.1 prescriptions utilized for each person (30.3 prescriptions for each family). The average cost of a prescription was \$39.92, which translates into an average of \$1,209.58 in prescription costs for each family in 2001.

NOTES

- 71 Statistics Canada, *National Population Health Survey, 1998–99* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell; Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health, *Canadian Profile: Alcohol, Tobacco and Other Drugs* (1999) Ottawa: Canadian Centre on Substance Abuse.
- 72 Cormier, R.A., C.A. Dell, and N. Poole (forthcoming). *Women's Health Surveillance Report*. Ottawa: Health Canada
- 73 Statistics Canada, *Canada's Alcohol and Other Drugs Survey* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 1996). In Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health (1999) *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 74 Statistics Canada, *National Population Health Survey, 1998–99* (Ottawa: Statistics Canada, Canadian Centre for Health Information, 2000). Analysis and interpretation by K. Garabedian and C.A. Dell; Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 75 National Native Alcohol and Drug Abuse Program [2000?]. *National Native Alcohol and Drug Abuse Program. General Review. 1998. Final Report*. Ottawa: First Nations and Inuit Health Branch.
- 76 Canadian Institute for Health Information, 2001 National Health Expenditure Database. Health expenditures include any type of expenditure for which the primary objective is to improve or prevent the deterioration of health status.
- 77 2001 and 2002 figures are forecast values.
- 78 All values are in current dollars (adjusted for inflation).
- 79 Canadian Institute for Health Information, National Health Expenditure Database.
- 80 Ibid.
- 81 The categories include hospitals (includes drugs dispensed), other institutions (e.g., residential type facilities for the chronically ill) (includes drugs dispensed), physicians (e.g., professional fees), other professionals (e.g., dentists, massage therapists), drugs (prescribed drugs and non-prescribed products purchased in retail stores), capital (e.g., construction of hospitals), public health and administration (e.g., food and drug safety, health inspections), and other health spending (e.g., home care, medical transportation).
- 82 IMS Health (2002). *Insights into Health, Drug Monitor*. Quebec: IMS Health, 2002.



Prevalence: Solvent Abuse

Post-1997

- In 1998–99, 10% of 12- and 13-year-old females and males reported that their friends had tried glue or solvents.
- The 1998 General Review Report of the National Native Alcohol and Drug Abuse Program concluded that solvent abuse was an important issue that must be addressed at the Aboriginal community level.
- A 1993 survey of all Bands or reserves in Canada found that more than half of all solvent-abusing youth respondents began to abuse solvents when they were 11 years old or younger. Three-quarters of those who reported using solvents also used alcohol.

1997 and Prior

- In 1994, less than 1% of females and slightly more than 1% of males reported using a solvent in their lifetime.

Prevalence: *Solvent Abuse*

Solvent Abuse

There are extremely limited Canadian data from which to draw to examine solvent abuse. Data from the 1994 *Canada's Alcohol and Other Drugs Survey* revealed that 0.3% of females and 1.2% of males aged 15 and older reported use of a solvent(s) in their lifetime. The greatest age concentration was 15 to 17 years⁸³. More recently, the 1998–99 *National Longitudinal Survey of Children and Youth—Cycle 3*⁸⁴ asked those 12 and 13 years of age whether their friends had tried glue or solvents: 89.7% responded that none had, 9.5% a few, 0.6% most and 0.2% all. There was minor variation by sex.

Though not national in scope, the *Ontario Student Drug Use Survey*⁸⁵ reported that between 1977 and 2001 the rate of glue sniffing (e.g., airplane glue, contact cement) in the past 12 months by youth from Grades 7 to 13⁸⁶ with the intention to get high averaged 2.5%. The percentage fluctuated over the 23-year time-frame, from a high of 4.3% in 1979 to a low of 1.1% in 1991 (2.6% was reported in 2001). The sniffing of solvents in order to get high (e.g., nail polish remover, paint thinner, gasoline) averaged 4%. This percentage also fluctuated over the 23-year period, with an upward trend in 1999 and 2000.

Current rates of solvent abuse among Canada's Aboriginal population are unknown, although the media regularly depicts the rates as higher in comparison with the general population, in particular among the youth population. The 1998 *General Review Report of the National Native Alcohol and Drug Abuse Program*⁸⁷ concluded that solvent abuse was an important issue that must be addressed at the Aboriginal community level. Further, a 1993 national survey, entitled *First Nations and Inuit Community Youth Solvent Abuse Survey and Study*⁸⁸, surveyed all Bands or reserves in Canada⁸⁹ with the goal of identifying the treatment needs of First Nations youth across the country, including information on the numbers and characteristics of youth abusing solvents⁹⁰. It was reported that more than half of all solvent-abusing youth respondents began to abuse solvents when they were 11 years old or younger. The majority of solvent-abusing respondents reported being experimental users (43.3%), followed by social users (37.5%) and then chronic users (19.2%). Seventy-six percent of youth who used solvents also used alcohol. The most frequent form of alcohol use was social (55.1%), followed by experimental (25.4%) and then chronic (19.5%).

NOTES

- 83 Canadian Centre on Substance Abuse, Centre for Addiction and Mental Health. (1999). *Canadian Profile: Alcohol, Tobacco and Other Drugs*. Ottawa: Canadian Centre on Substance Abuse.
- 84 Statistics Canada, *National Longitudinal Survey of Children and Youth, 1994–95*. (Ottawa: Statistics Canada). Analysis and interpretation by K. Garabedian and C.A. Dell.
- 85 Adlaf, E. and A. Paglia (2001). *Drug Use Among Ontario Students. Findings from the OSDUS. 1977–2001*. Toronto: Centre for Addiction and Mental Health.
- 86 Grades 7, 9, 11 and 13.
- 87 National Native Alcohol and Drug Abuse Program [2000?]. *National Native Alcohol and Drug Abuse Program. General Review. 1998. Final Report*. Ottawa: First Nations and Inuit Health Branch.
- 88 Kaweionnehta Human Resource Group (1993). *First Nations and Inuit Community Youth Solvent Abuse Survey and Study*. Ottawa: National Native Alcohol and Drug Abuse Program/Addictions and Community-funded Programs.
- 89 There was a total of 1,248 youth profile respondents, with no control for representation across the country (e.g., no profile responses received from Prince Edward Island or New Brunswick).
- 90 Solvent abuse was confined to volatile solvents, which are the most common inhaled by First Nations and Inuit youth. These include glues, adhesives and cements, nail polish remover, paint remover and thinner, correction fluid and thinner, fuel gas, lighter fluid, dry cleaning agents and spot removers, and aerosol propellants, in addition to other products.

Enforcement: Alcohol

Post-1997

- In the first six months of 2002, there were a reported 1,047 alcohol seizures, a decrease from 1,441 during the same period in 2001.
- In 2000–01, 5.3 adult females per 10,000 adult female population in Canada were processed through the court system for impaired driving. This is a decrease from 7.0 in 1994–95.
- In 2000–01, 39.5 adult males per 10,000 adult male population in Canada were processed through the court system for impaired driving, showing a decrease from 66.3 in 1994–95.
- In 2000–01, more than twice as many males as females received a prison sentence for impaired driving (as a percentage of all sentence dispositions for convicted cases of impaired driving).

- A 2001 study commissioned by the Canadian Centre on Substance Abuse and the Correctional Service of Canada found a strong association between crime and alcohol use.
- Between 1994–95 and 1997–98, there was a slight decrease in the most serious sentence of imprisonment for impaired driving for both males and females.

1997 and Prior

- According to data from 1993 to 1995, three-quarters of federally incarcerated individuals reported having consumed alcohol at least once in the six months prior to their arrest. Nearly one-half reported having used alcohol at least once a week.

Enforcement: *Alcohol*

ALCOHOL

Impaired Driving

Examining the alcohol-specific^{91, 92} crime category of impaired driving⁹³ recorded in the *Adult Criminal Court Survey*⁹⁴ by case⁹⁵, we see that in 2000–01, 5.3 adult females per 10,000 adult female population^{96, 97} in Canada were processed through the court system⁹⁸. This represents a decrease from 7.0 in 1994–95. Comparatively, there was a considerable decrease in adult males processed through the court system for impaired driving per 10,000 adult male population in Canada: 66.3 per 10,000 adult male population in 1994–95 to 39.5 in 2000–01 (see *Figure 11*).

For females found guilty of impaired driving, there was a slight decrease in the most serious sentence of imprisonment⁹⁹: from 12.1% in 1994–95 to 11.2% in 1997–98¹⁰⁰. This was similar for males: from 23.6% in 1994–95 to 20.7% in 1997–98. As for convicted cases by all/combined sentences issued (as distinct from most serious sentence reported above), in 2000–01 there was somewhat similar distribution across the sentence categories by sex (prison, probation, fine, restitution, conditional sentence, other), with the greatest difference in the prison category: 8.3% of males received a prison sentence compared with 3.6% of females¹⁰¹ (see *Figure 12*).

FIGURE 11: Males and females processed through the adult court system for impaired driving, per 10,000 male and female adult populations, Canada, ACCS, 1994–95 to 2000–01^{102, 103} (raw numbers noted)

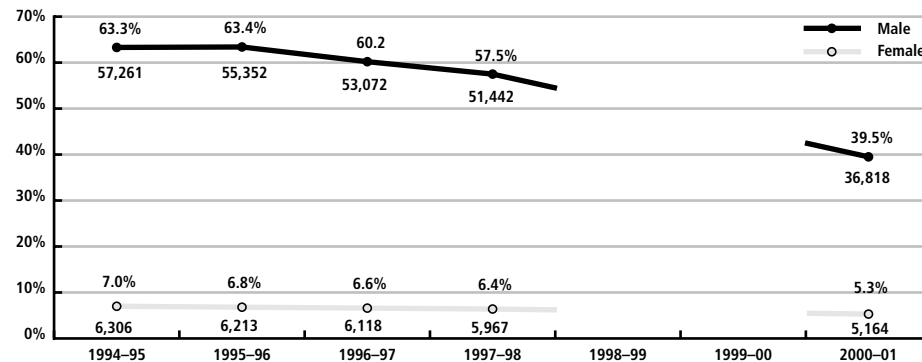
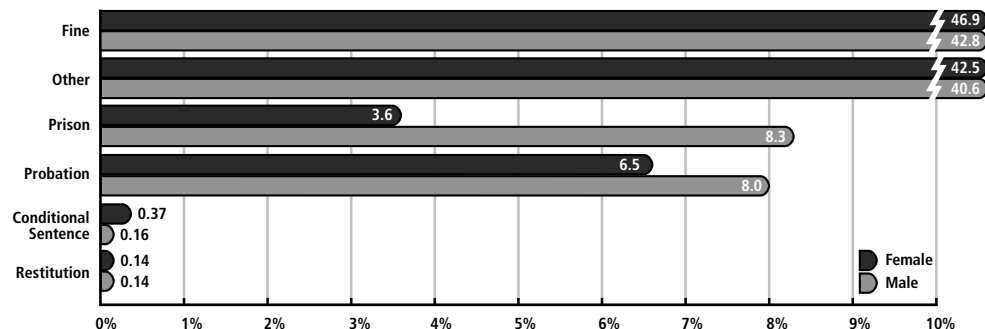


FIGURE 12: Percentage¹⁰⁴ of all male and female sentence dispositions for convicted cases of impaired driving, by sentencing category, Canada, ACCS, 2000–01¹⁰⁵



Alcohol Use and Crime

A recent study commissioned by the Canadian Centre on Substance Abuse and the Correctional Service of Canada found a strong association between crime and alcohol and illicit drug use¹⁰⁶. The study concluded that 24% of women were thought by arresting officers to be under the influence of alcohol at the time of arrest, 11% illicit drugs, and 9% alcohol and drugs combined. For males, the rate was considerably higher for alcohol (35%), but similar for drugs (8%) and drugs and alcohol combined (10%). Further, 3% of males and 1% of females were assessed by arresting officers to have committed their crime in order to get alcohol for personal use, 14% of males and 18% of females to get drugs, and 1% of males and 2% of females to get drugs and alcohol combined.

Drawing on data gathered from the federally incarcerated population from 1993 to 1995¹⁰⁷ using the Computerized Lifestyle Assessment Instrument¹⁰⁸, a recent study by the Correctional Service of Canada found that approximately 75% of individuals reported having consumed alcohol at least once in the six months prior to their arrest. Forty-four percent reported using alcohol at least once a week, and 13% reported using it everyday or almost every day¹⁰⁹.

Alcohol Seizures

The Canada Customs and Revenue Agency¹¹⁰ reported 1,047 alcohol seizures from January to June, 2002 and 1,441 during the same period in 2001. This is a 27% decrease in the total number of seizures and a 16% decrease in the total quantity (litres) of alcohol seized by custom officials (*see Table 6*).

TABLE 6: Alcohol seizures, January to June 2001 and January to June 2002, CCRA¹¹¹

Alcohol Seizures	Number of Seizures	Beer (Litres)	Spirits (Litres)	Wine (Litres)	Other Alcohol (Litres)	Total Quantity (Litres)
2001	1,441	6,446	6,237	3,398	73	16,154
2002	1,047	7,749	3,358	2,302	84	13,493
Increase/Decrease 01–02	-27%	20%	-46%	-32%	14%	-16.5%

NOTES

- 91 The most recent data from the Uniform Crime Reporting Survey on impaired driving charges were not available at the time of this report.
- 92 The majority are alcohol-related.
- 93 This includes impaired driving, impaired driving causing death/bodily harm, impaired >.08, and failure to provide sample.
- 94 Boe et al. warn that the adult criminal court survey database is still relatively new, and so data should be interpreted with caution (Boe, R., C.L. Olah and C. Cousineau [2000]. *Federal Imprisonment Trends for Women 1994–95 to 1998–99*. Ottawa: Correctional Service of Canada.)
- 95 When a “case” involves more than one charge, information for the most serious offence is recorded. All charges in a case are ranked according to an offence severity scale.
- 96 The population totals used for calculations do not include New Brunswick, Manitoba, British Columbia or Nunavut (these provinces and territory are not included in the Adult Criminal Court Survey).
- 97 Statistics Canada, *Annual Demographic Statistics*. (Ottawa: Statistics Canada). (1992–1995: final inter-censal estimates; 1996–1997: final post-censal estimates; 1998–2001 updates post-censal estimates).
- 98 Statistics Canada, *Adult Criminal Court Survey, 1994–95, 1995–96, 1996–97, 1997–98, 2000–01* (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 99 Most serious sentence is recorded when more than one sentence is associated with the most serious offence in a case. Sentences are ranked from most to least serious, starting with imprisonment.
- 100 2000–01 data were not available for this report.
- 101 Note that this cannot be compared with the data presented above, which is based on most serious sentence, nor does it account for the number of sentence components (prison, probation, fine, restitution, conditional sentence and/or other).
- 102 Statistics Canada, *Adult Criminal Court Survey, 1994–95, 1995–96, 1996–97, 1997–98, 2000–01* (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 103 1998–99 and 1999–2000 data were not purchased for this report.
- 104 Compares the percentage each value contributes with a total across categories.
- 105 Statistics Canada, *Adult Criminal Court Survey, 2000–01* (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 106 Pernanen, K., M. Cousineau, S. Brochu and F. Sun, (2002). *Proportions of Crimes Associated with Alcohol and Other Drugs in Canada*. Ottawa: Canadian Centre on Substance Abuse.
- 107 Sample size of 8,598 individuals.
- 108 Since the early 1990s individuals entering a Canadian federal institution have self-administered the Computerized Lifestyle Assessment Instrument on a computer screen.
- 109 Brochu, S., L. Cournoyer, K. Pernanen and L. Motiuk (2001). “Drugs, alcohol and criminal behaviour: A profile of inmates in Canadian federal institutions”. *FORUM on Corrections*. Ottawa: Correctional Service Canada. Vol. 13, No. 3. pp. 20–24.
- 110 Canada Customs and Revenue Agency, (2002). *Customs Intelligence Bulletin, April–June, 2002*. Ottawa: Canada Customs and Revenue Agency.
- 111 Ibid.

Enforcement: Illicit Drugs

Post-1997

- From April-June, 2002, there were a reported 240 significant drug seizures made, which is similar to the 242 reported during the same period in 2001. However, the 2002 drug seizures translate into a dollar value of \$36.7 million while the 2001 seizures were valued at \$144 million. The decline in quantities of cocaine, ecstasy, and heroin seized, combined with the fall of the street value of cocaine, may have contributed to the decrease.
- A 2001 study commissioned by the Canadian Centre on Substance Abuse and the Correctional Service of Canada found a strong association between crime and illicit drug use.
- In 2001, 19.7 adults per 10,000 adult population were charged with a drug offence in Canada. This is an increase from 16.7 in 1998. The majority of adults charged were male (average 86% over the three-year period).
- In 2001, cannabis charges represented the vast majority of drug offences that adult males and females were charged with (71% of all male drug charges and 62% of all female drug charges). Further, 63% of charges for possession involved men, compared with 44% for women. Women were more likely than men to be charged with trafficking (33% vs. 25%) and production (22% vs. 12%). The charge rate for importation was the same for both (1%).
- There was an increase from 1998 to 2001 in youth charged with a drug offence per 10,000 youth population in Canada: 22.7 in 1998 to 33.8 in 2001. The majority of youth charged were male (average 87% over the three-year period).
- In 2001, unlike adult cannabis charge rates, male and female youth were distributed similarly among offence

categories (74% vs. 72% for male and female possession charges respectively, 24% vs. 25% for trafficking, and 1% vs. 3% for production).

- Federal corrections data from 1994 to 2001 reveal that there was a continuous albeit nominal increase in the number of individuals incarcerated for a drug offence. On average they comprise one-quarter of the prison population.
- The majority of incarcerated drug offenders in 2001 were male (94.1%). However, even though the proportion of female involvement is limited, it has increased from 3% in 1994 to 5.9% in 2001.
- In 2000-01, 3.3 adult females per 10,000 adult female population in Canada were processed through the court system for the drug-related offences of trafficking and possession. This is a decrease from 4.3 in 1994-95.
- In 2000-01, 21.2 adult males per 10,000 adult male population in Canada were processed through the court system for the drug-related offences of trafficking and possession. This is a decrease from 25.1 in 1994-95.
- In 2000-01, 28.8% of males and 24.7% of females received a prison sentence for drug trafficking. However, for drug possession, a greater percentage of females received a prison sentence than males (8% of males and 11.6% of females).

1997 and Prior

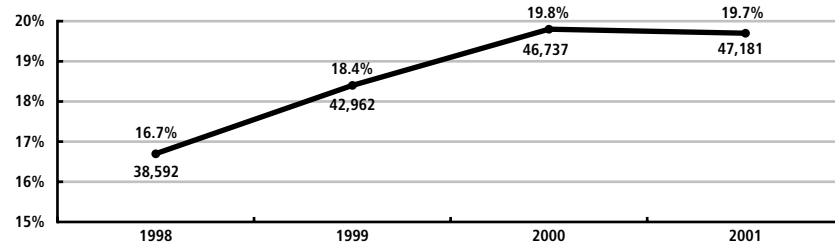
- According to data from 1993 to 1995, approximately half of federally incarcerated individuals reported having used illicit drugs at least once in the six months prior to their arrest. More than one-third reported having used drugs at least once a week.

Enforcement: *Illicit Drugs*

Adult Illicit Drug Charges

Data from the *Uniform Crime Reporting Survey*¹¹² reveal an overall increase in the number of adults charged with a drug offence per 10,000 adult population from 1998 to 2001: 16.7 in 1998 and 19.7 in 2001¹¹³ (see Figure 13). From 1998 to 2001, the majority of adults charged were male (average 86%). In 2001, cannabis charges represented the vast majority of drug offences adult males were charged with (71%), followed by cocaine (21%), other drugs (7%) and heroin (1%). In comparison, adult females received proportionally fewer charges for cannabis (62%), and more for cocaine (27%), other drugs (9%) and heroin (2%) (see Table 7).

FIGURE 13: Adults charged with a drug offence, per 10,000 adult population, Canada, UCR, 1998–2001¹¹⁴ (raw numbers noted)



When comparing charges for possession, trafficking, importation and production within drug categories (heroin, cocaine, cannabis, other) for males and females, and proportionally between drug categories for males and females, there are notable differences. In 2001, the greatest difference between male and female adult charges for possession, trafficking, importation and production was for cannabis: 63% of adult males were charged with possession, 25% with trafficking, 12% with production and 1% with importation. For adult females, 44% were charged with possession, 33% with trafficking, 22% with production and 1% with importation. A noteworthy finding is the proportionally higher percentage of females charged with production and trafficking of cannabis in comparison to males (see Figure 14).

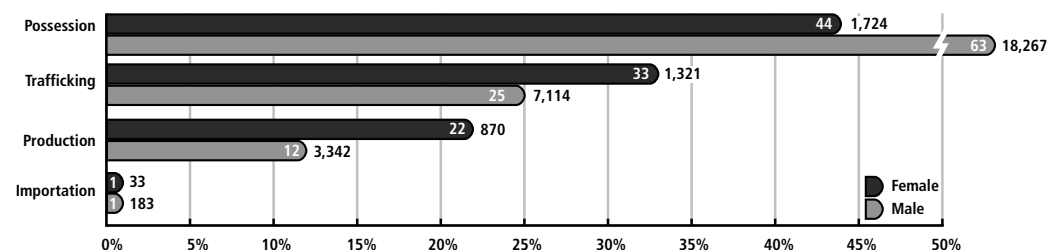
TABLE 7: Female and male adults charged with a drug offence, Canada, UCR, 2001¹¹⁵

DRUG OFFENCE	MALE		FEMALE		TOTAL	
HEROIN						
Possession	200	36%	41	31%	241	35%
Trafficking	339	61%	88	67%	427	62%
Importation/Production	14	3%	2	2%	16	2%
Total Heroin	553	100%	131	100%	684	100%
Proportion of all heroin charges by sex		81%		19%		100%
As a proportion of all drug charges within sex		1%		2%		*
As a proportion of all drug charges		*		*		1%
COCAINE						
Possession	3,047	36%	643	38%	3,690	37%
Trafficking	5,189	62%	963	57%	6,152	61%
Importation/Production	139	2%	83	5%	222	2%
Total Cocaine	8,375	100%	1,689	100%	10,064	100%
Proportion of all cocaine charges by sex		83%		17%		100%
As a proportion of all drug charges within sex		21%		27%		*
As a proportion of all drug charges		*		*		21%
OTHER DRUGS						
Possession	1,415	49%	207	37%	1,622	47%
Trafficking	1,303	45%	293	52%	1,596	46%
Importation/Production	193	7%	62	11%	255	7%
Total Other Drugs	2,911	100%	562	100%	3,473	100%
Proportion of all other drug charges by sex		84%		16%		100%
As a proportion of all drug charges within sex		7%		9%		*
As a proportion of all drug charges		*		*		7%
CANNABIS						
Possession	18,267	63%	1,724	44%	19,991	61%
Trafficking	7,114	25%	1,321	33%	8,435	26%
Importation	183	1%	33	1%	216	1%
Production	3,342	12%	870	22%	4,212	13%
Total Cannabis	28,906	100%	3,948	100%	32,854	100%
Proportion of all cannabis charges by sex		88%		12%		100%
As a proportion of all drug charges within sex		71%		62%		*
As a proportion of all drug charges		*		*		70%
CONTROLLED DRUG TRAFFICKING						
Total Controlled Drugs	56	100%	13	100%	69	100%
Proportion of all controlled drug charges by sex		81%		19%		100%
As a proportion of all drug charges within sex		—		—		*
As a proportion of all drug charges		*		*		0.1%
RESTRICTED DRUGS						
Possession	22	67%	3	75%	25	68%
Trafficking	11	33%	1	25%	12	32%
Total Restricted Drugs	33	100%	4	100%	37	100%
Proportion of all restricted drug charges by sex		89%		11%		100%
As a proportion of all drug charges within sex		—		—		*
As a proportion of all drug charges		*		*		0.1%
TOTAL DRUG CHARGES	40,834		6,347		47,181	
Total Proportion Of All Drug Charges By Sex		87%		13%		100%

NOTE: 1. Totals may not add to 100 due to rounding. 2. The Controlled Drugs and Substances Act (CDSA) repealed and replaced the Narcotic Control Act (NCA) and parts of the Food and Drugs Act (FDA) in 1996. With this change in legislation, offences related to the possession, trafficking and importation of certain controlled or restricted drugs are now (since 1997) included in the category of Other Drugs. However, some police forces continue to report using old offence codes, hence comparisons with years prior to 1997 should be made with caution.

*Numbers not applicable / — Less than 1 percent

FIGURE 14: Within cannabis drug categories, proportion of adults charged with production, importation, trafficking and possession, by sex, Canada, UCR, 2001¹¹⁶ (raw numbers noted)

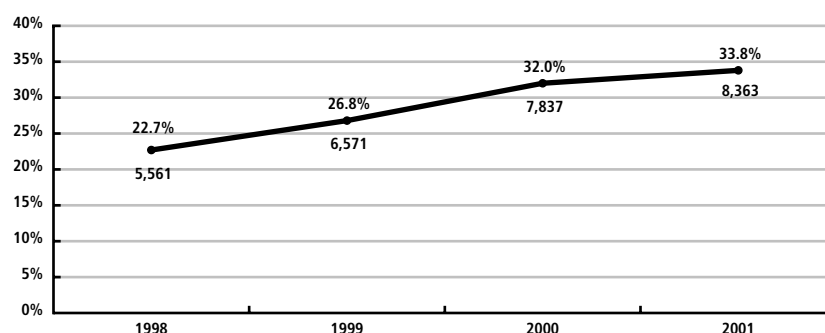


According to the *Uniform Crime Reporting Survey*¹¹⁷, the total number of adults charged for controlled drug¹¹⁸ trafficking and possession and trafficking of restricted drugs¹¹⁹ was minimal in both 2000 and 2001. In 2001, 56 adult males and 13 adult females were charged with controlled drug trafficking. Further, 33 adult males and four adult females were charged with possession or trafficking of restricted drugs.

Youth Illicit Drug Charges

The 2000 and 2001, *Uniform Crime Reporting Survey* data reveal an increase in youth charged overall with a drug offence per 10,000 youth population: 22.7 in 1998 and 33.8 in 2001¹²⁰ (see Figure 15). Nearly identical to the adult population, the majority of youth charged over the four-year period were male (average 87%)¹²¹. In 2001, cannabis charges represented the vast majority of drug offences that youth males were charged with (88%), followed by other drugs (6%) and cocaine (5%). In comparison – and like the adult population – there were proportionally fewer female charges for cannabis (79%), and thus more charges for other drugs (10%), cocaine (9%) and heroin (1%) (see Table 8).

FIGURE 15: Youth charged with a drug offence, per 10,000 youth population, Canada, UCR, 1998–2001¹²² (raw numbers noted)



Comparing charges for possession, trafficking, importation and production within drug categories (heroin, cocaine, cannabis, other) by sex, and proportionally among drug categories by sex, we find minor differences for youth. In 2001, the greatest differences were for other drug charges: 60% of males were charged with possession, 39% with trafficking and 2% with importation/production. For females, 50% were charged with possession, 47% with trafficking and 4% with importation/production. Examining cannabis charges, we see that 74% of male youth were charged with possession, 24% with trafficking, and 1% with production. Similar to males, 72% of female youth were charged with possession, 25% with trafficking and 3% with production. It is interesting to note the

similarity in charges within the cannabis category between female and male youth, but as noted, this was not the case with adults.

TABLE 8: Female and male youth charged with a drug offence, Canada, UCR, 2001¹²³

DRUG OFFENCE	MALE		FEMALE		TOTAL	
HEROIN						
Possession	2	15%	5	63%	7	33%
Trafficking	11	85%	2	25%	13	62%
Importation/Production	0	—	1	13%	1	5%
Total Heroin	13	100%	8	100%	21	100%
Proportion of all heroin charges by sex		62%		38%		100%
As a proportion of all drug charges within sex		—		1%		*
As a proportion of all drug charges		*		*		0.3%
COCAINE						
Possession	118	30%	33	33%	151	30%
Trafficking	277	70%	67	67%	344	69%
Importation/Production	3	1%	1	1%	4	1%
Total Cocaine	398	100%	101	100%	499	100%
Proportion of all cocaine charges by sex		80%		20%		100%
As a proportion of all drug charges within sex		5%		9%		*
As a proportion of all drug charges		*		*		6%
OTHER DRUGS						
Possession	243	60%	57	50%	300	57%
Trafficking	159	39%	53	47%	212	41%
Importation/Production	6	2%	4	4%	10	2%
Total Other Drugs	408	100%	114	100%	522	100%
Proportion of all other drug charges by sex		78%		22%		100%
As a proportion of all drug charges within sex		6%		10%		*
As a proportion of all drug charges		*		*		6%
CANNABIS						
Possession	4,785	74%	622	72%	5,407	74%
Trafficking	1,554	24%	215	25%	1,769	24%
Importation	6	—	0	—	6	—
Production	91	1%	26	3%	117	2%
Total Cannabis	6,436	100%	863	100%	7,299	100%
Proportion of all cannabis charges by sex		88%		12%		100%
As a proportion of all drug charges within sex		88%		79%		*
As a proportion of all drug charges		*		*		87%
CONTROLLED DRUG TRAFFICKING						
Total Controlled Drugs	8	100%	2	100%	10	100%
Proportion of all controlled drug charges by sex		80%		20%		100%
As a proportion of all drug charges within sex		—		—		*
As a proportion of all drug charges		*		*		0.1%
RESTRICTED DRUGS						
Possession	7	70%	1	50%	8	67%
Trafficking	3	30%	1	50%	4	33%
Total Restricted Drugs	10	100%	2	100%	12	100%
Proportion of all restricted drug charges by sex		83%		17%		100%
As a proportion of all drug charges within sex		—		—		*
As a proportion of all drug charges		*		*		0.1%
TOTAL DRUG CHARGES	7,273		1,090		8,363	
Total Proportion of All Drug Charges By Sex		87%		13%		100%

NOTE: 1. Totals may not add to 100 due to rounding. 2. The Controlled Drugs and Substances Act (CDSA) repealed and replaced the Narcotic Control Act (NCA) and parts of the Food and Drugs Act (FDA) in 1996. With this change in legislation, offences related to the possession, trafficking and importation of certain controlled or restricted drugs are now (since 1997) included in the category of Other Drugs. However,

some police forces continue to report using old offence codes, hence comparisons with years prior to 1997 should be made with caution.
 *Numbers not applicable / — Less than 1 percent

According to the *Uniform Crime Reporting Survey*¹²⁴, the total number of youth charged for controlled drug¹²⁵ trafficking, and possession and trafficking of restricted drugs¹²⁶ was minimal in both 2000 and 2001, as was the case with adults. In 2001, eight male and two female youth were charged with controlled drug trafficking. Further, 10 male and two female youth were charged with possession or trafficking of restricted drugs.

Adults Processed Through the Court System

Examining the illicit drug-related offences of trafficking¹²⁷ and possession¹²⁸ recorded in the *Adult Criminal Court Survey*¹²⁹ by case¹³⁰, we see that in 2000–01, 3.3 adult females per 10,000 adult female population in Canada were processed through the court system. This is a decrease from 4.3 in 1994–95. In comparison, the rate of drug-related offences of trafficking and possession for males per 10,000 adult population was substantially higher, with 21.2 males per 10,000 male population processed through the court system in 2000–01. This too represents a decrease from 1994–95 (25.1 males per 10,000 male population) (see Figure 16).

For females found guilty of a drug-related offence, there was a steady decrease in the most serious sentence of imprisonment¹³¹: from 32.3% in 1994–95 to 25% in 1997–98. There was a similar but less pronounced trend for males: decreasing from 29.8% in 1994–95 to 26.8% in 1997–98. Examining convicted cases for drug trafficking and drug possession by all/combined sentences issued (as distinct from most serious sentence), we see that in 2000–01 there was somewhat similar distribution by sex in the sentencing category of drug trafficking, with the greatest difference in a conditional sentence: 17.5% of females received a conditional sentence compared with 10.5% of males. As for imprisonment, 28.8% of males and 24.7% of females received a prison sentence¹³² (see Figure 17). Sentences for the category of drug possession were not as evenly distributed between females and males as for drug trafficking. A notable finding is that a greater proportion of females received a prison sentence for drug possession than males (11.6% of females compared with 8% of males) (see Figure 18).

FIGURE 16: Males and females processed through the adult court system for a drug-related offence, per 10,000 male and female adult populations, Canada, ACCS, 1994–95 to 2000–01^{133, 134} (raw numbers noted)

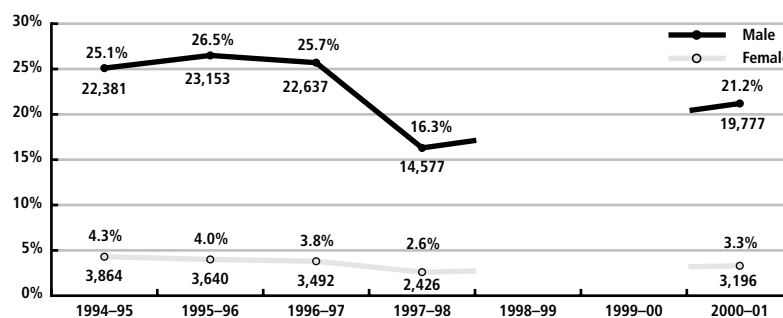
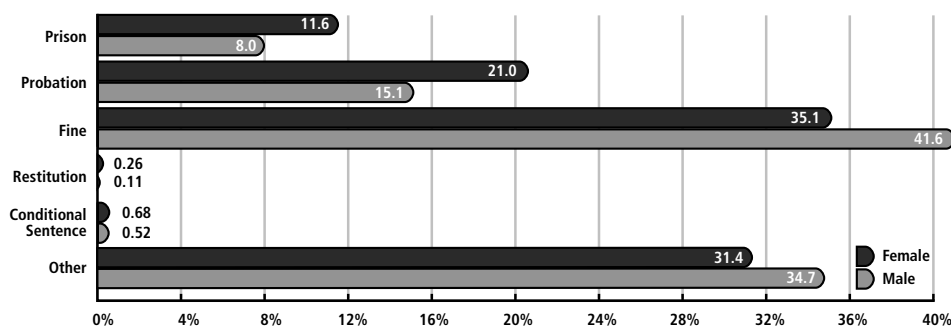


FIGURE 17: Percentage of all male and female sentence dispositions for convicted cases of drug trafficking, by sentencing category, Canada, ACCS, 2000–01^{135, 136}



FIGURE 18: Percentage of all male and female sentence dispositions for convicted cases of drug possession, by sentencing category, Canada, ACCS, 2000–01^{137, 138}



Drug Seizures

The Canada Customs and Revenue Agency¹³⁹ reports that from April to June, 2002, \$36.7 million worth of drugs in 240 significant seizures were made (includes both personal and trafficking sized seizures). Customs officials seized approximately \$17.8 million worth of cocaine, \$4.4 million of marijuana, \$1.4 million of MDMA (ecstasy), and \$1.3 million worth of *Catha edulis* (khat) (see Table 9). Compared with the same time period in 2001, the number of seizures has remained nearly the same (242 from April to June, 2001), but the value of the drugs seized decreased by 75% (from \$144 million in 2001 to \$36.7 million in 2002). The decline in quantities of cocaine, ecstasy, and heroin seized, combined with the fall of the street value of cocaine, may have contributed to this. From April to June, 2002, steroids accounted for the majority of seizures (102), followed by khat (51) and cocaine (41). More than 40% of all seizures took place in the postal mode, 37% in the air mode, 18% in the courier mode, and less than 2% each in both the land and marine modes. Pearson International Airport (Toronto) was the location of the majority of seizures.

TABLE 9: Quarterly drug summary of significant seizures, April to June, 2002 and April to June 2001, Canada, CCRA¹⁴⁰

Drug Type	Grams/ Dosage	April – June 2002			April – June 2001		
		Seizure Count	Quantity	Value	Seizure Count	Quantity	Value
Catha edulis (khat)	G (grams)	51	3,292,640	\$1,320,041	52	2,926,535	\$585,307
Cocaine	G	41	153,345	\$17,818,175	66	392,111	\$78,422,300
Coca paste	G	0	0	0	0	0	0
Crack cocaine	G	0	0	0	4	3,149	\$787,250
Hashish	G	2	1,565	\$31,300	4	7,310	\$146,190
Hash oil	G	2	5,000	\$175,000	3	58,952	\$2,358,080
Heroin	G	2	2,240	\$896,000	4	50,322	\$20,128,800
MDMA (ecstasy)	U (units)	2	40,537	\$1,418,795	30	1,132,497	\$39,637,395
Marijuana	G	4	220,616	\$4,412,320	10	72,946	\$1,094,185
Opium	G	13	11,590	\$579,515	6	10,386	\$415,432
Other drugs	U	20	35,134	\$78,111	16	13,004	\$41,567
Other drugs	G	1	96	\$9,630,000	0	0	0
Steroids	U	102	167,148	\$373,739	47	186,538	\$479,634
TOTAL		240		\$36,732,996	242		\$144,096,140

Drug Use and Crime

Drawing on the aforementioned study conducted by the Correctional Service of Canada using the Computerized Lifestyle Assessment Instrument¹⁴¹, it was found that approximately 50% of incarcerated individuals used illicit drugs at least once in the six months prior to their arrest. More than one-third (34%) used drugs at least once a week, with 19% using them every day or almost every day. The drugs used most commonly at least once a week were¹⁴²: cannabis (24.5%), cocaine (17.9%), heroin (4.2%) and tranquillizers (6.4%). There was less variation in use among drugs used everyday or almost every day: cannabis (10.8%), cocaine (9%), heroin (2.7%) and tranquillizers (2.1%).

As previously mentioned, a recent study commissioned by the Canadian Centre on Substance Abuse and Correctional Service of Canada found a strong association between crime and illicit drug use¹⁴³. It was concluded that 11% of women and 8% of men were thought by arresting officers to be under the influence of illicit drugs at the time of arrest. Further, 14% of males and 18% of females were assessed to have committed the crime in order to get drugs for personal use.

Within the federally incarcerated population, there was a continuous albeit nominal increase in the number of individuals incarcerated¹⁴⁴ for a drug offence¹⁴⁵ from 1994 to 2001 (1994: 5,117 and 2001: 5,761)¹⁴⁶. They comprised nearly a quarter of the incarcerated population in both time periods, with the proportion steadily increasing from 1994 (23.1%) to 2001 (26.5%). The majority of incarcerated drug offenders in 2001 were male (94.1%). It is interesting to note, however, that even though the proportion of female involvement is limited (5.9% in 2001), it has increased over the seven-year period (from 3% in 1994 to 5.9% in 2001; that is, there were 163 federal female drug offenders in 1994 and 342 in 2001). The average age of males and females combined over the seven-year period is 35, ranging from 36 in 1996 to 33 in 2001.

NOTES

- 112 Statistics Canada, *Uniform Crime Reporting Survey*, 2000 & 2001. (Ottawa: Statistics Canada). Policing Services Program, Canadian Centre for Justice Statistics Division, Statistics Canada. Analysis and interpretation by C.A. Dell and K. Garabedian.
- 113 1999 = 18.4%, 2000 = 19.8%. Source: Policing Services Program, Canadian Centre for Justice Statistics Division, Statistics Canada.
- 114 Statistics Canada, *Uniform Crime Reporting Survey*, 2000 and 2001. (Ottawa: Statistics Canada). Analysis and interpretation by C. A. Dell and K. Garabedian.
- 115 Ibid.
- 116 Ibid.
- 117 Ibid.
- 118 The Controlled Drugs and Substances Act (CDSA) repealed and replaced the Narcotic Control Act (NCA) and parts of the Food and Drugs Act (FDA) in 1996. With this change in legislation, offences related to the possession, trafficking and importation of certain controlled or restricted drugs are now (since 1997) included in the category of Other Drugs. However, some police forces continue to report using old offence codes, hence comparisons with years prior to 1997 should be made with caution.
- 119 Ibid.
- 120 1999 = 26.8%, 2000 = 32%. Source: Policing Services Program, Canadian Centre for Justice Statistics Division, Statistics Canada.
- 121 In 2001, adult males were more likely to be charged with a drug offence (87% of all drug charges) in comparison to adult females (13% of all drug charges). Youth charge rates in 2001 for total drug offences were identical for males and females to the adult rates.
- 122 Statistics Canada, *Uniform Crime Reporting Survey*, 2000 & 2001. (Ottawa: Statistics Canada). Policing Services Program, Canadian Centre for Justice Statistics Division, Statistics Canada. Analysis and interpretation by C.A. Dell and K. Garabedian.
- 123 Ibid.
- 124 Ibid.
- 125 See Note 118.
- 126 Ibid.
- 127 This includes trafficking/importing drugs, heroin, cocaine, cannabis, restricted drugs, other drugs.
- 128 This includes possession of drugs, heroin, cocaine, cannabis, restricted drugs, other drugs.
- 129 Note: "It is difficult to make comparisons between data reported by police and data from other sectors of the criminal justice system (i.e., courts and corrections). There is no single unit of count (i.e., incidents, offences, charges, cases or persons) which is defined consistently across the major sectors of the justice system. As well, charges actually laid can be different from the most serious offence by which incidents are categorized. In addition, the number and types of charges laid by police may change at the pre-court stage or during the court process. Time lags between the various stages of the justice process also make comparisons difficult." (Statistics Canada 2001, Canadian Crime Statistics. Catalogue no. 85-205).
- 130 When a "case" involves more than one charge, information for the most serious offence is recorded. All charges in a case are ranked according to an offence severity scale.
- 131 Most serious sentence is recorded when more than one sentence is associated with the most serious offence in a case. Sentences are ranked from most to least serious, starting with imprisonment.
- 132 Note that this cannot be compared with the data presented above, which is based on most serious sentence, and nor does it account for the number of sentence components (prison, probation, fine, restitution, conditional sentence and/or other).
- 133 Statistics Canada, *Adult Criminal Court Survey*, 1994–95, 1995–96, 1996–97, 1997–98, 2000–01 (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 134 1998–99 and 1999–2000 data were not purchased for this report.
- 135 Compares the percentage each sentence distribution contributes to a total across all categories.
- 136 Statistics Canada, *Adult Criminal Court Survey*, 2000–01 (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 137 Compares the percentage each sentence distribution contributes to a total across all categories.
- 138 Statistics Canada, *Adult Criminal Court Survey*, 2000–01 (Ottawa: Statistics Canada). Analysis and interpretation by C.A. Dell and K. Garabedian.
- 139 Canada Customs and Revenue Agency, (2002). *Customs Intelligence Bulletin*. Ottawa: Canada Customs and Revenue Agency.
- 140 Ibid.

- 141 Brochu, S., L. Cournoyer, K. Pernanen and L. Motiuk (2001). "Drugs, alcohol and criminal behaviour: A profile of inmates in Canadian federal institutions". *FORUM on Corrections*. Ottawa: Correctional Service Canada. Vol. 13, No. 3. pp. 20–24.
- 142 Categories are not mutually exclusive and drugs may be used in combination with alcohol.
- 143 Pernanen, K., M. Cousineau, S. Brochu and F. Sun, (2002). *Proportions of Crimes Associated with Alcohol and Other Drugs in Canada*. Ottawa: Canadian Centre on Substance Abuse.
- 144 Includes both federally incarcerated and on conditional release.
- 145 Drug offences are those under the Food and Drug Act (FDA) and the Narcotics Control Act (NCA). The Controlled Drugs and Substances Act (CDSA) repealed and replaced the Narcotic Control Act (NCA) and parts of the Food and Drugs Act (FDA) in 1996.
- 146 Motiuk, L. and B. Vuong (2002). *Homicide, Sex, Robbery and Drug Offenders in Federal Corrections: An End of 2001 Review*. Ottawa: Correctional Service of Canada.



Treatment

Post-1997

- CCSA's Addictions Treatment Database indicates that in February, 2003, there were 1,012 addiction treatment programs identified in Canada. The greatest availability of addiction treatment services was for alcohol problems and the least for hallucinogens.
- According to the National Native Alcohol and Drug Abuse Program, in February, 2003, there were 57 funded treatment centres, nine of which were specific to solvent abuse.
- There has been a steady decrease from 1998 to 2002 in the share of call volume concerning substance abuse to the Kids Help Phone. On average, 6% of the total call volume was for substance abuse issues. Fifty-nine percent of the substance abuse specific calls that required in-depth counselling were for drugs and 23% for alcohol, with the remaining 18% for a combination of the two.
- Data from Parent Help Line showed an increase in the number of calls concerning substance abuse from 2001 to 2002, with a slight increase in the overall share of call volume.
- A 2001 Correctional Service of Canada study found that institutional methadone maintenance treatment had a beneficial effect on outcomes following release.
- There was a decrease from 1993–94 to 1998–99 in the number of residential care facilities for drug and alcohol addiction in Canada and in the total number of licensed or authorized beds. In 1998–99 there were 142,768 persons under care.
- According to the 1997 First Nations and Inuit Regional Longitudinal Health Survey, 50% of respondents saw no progress against alcohol and drug abuse in their communities despite the deployment of considerable resources. Attention to community wellness and traditional ways of healing was needed, according to respondents.

1997 and Prior

- A 1994–95 review of the National Native Alcohol and Drug Abuse Program treatment centres identified alcohol as the most widely abused substance, followed by narcotics and hallucinogens.

Treatment

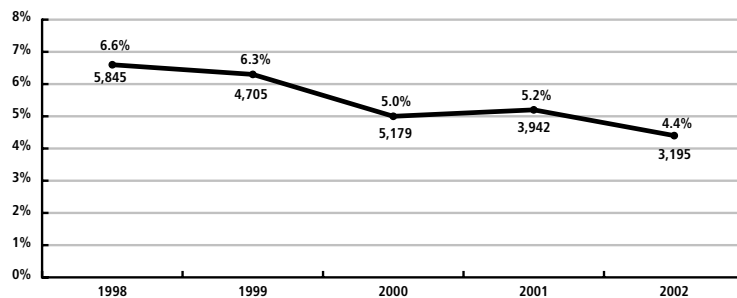
Residential Care Facilities

In 1998–99, there were 238 residential care facilities in Canada for people with alcohol and drug addiction problems, for which 6,019 beds were licensed or approved by provincial or municipal authorities. The 1998–99 *Residential Care Facilities Survey*¹⁴⁷ reports on 183¹⁴⁸ of these 238 facilities, for a total of 4,752 licensed or approved beds. The survey found that of the 4,752 licensed or approved beds, 4,361 were available for use (391 were not). The occupancy rate for the available beds was 88.8%. By province, Prince Edward Island had the highest occupancy rate (100%) and New Brunswick the lowest (80.5%)¹⁴⁹. There were 139,341 admissions in the reporting facilities, with 142,768 persons under care. There was little variation in the in-facility patient count between April 1, 1998 and March 31, 1999 (3,427 versus 3,394). Interesting, however, is that in comparison with 1998–99, data from the 1993–94 Residential Care Facilities Survey revealed significantly more patients were on count on March 31, 1994 in reporting facilities (5,034). Further, there has also been a decline since 1993–94 in the total number of beds available (6,185) and the total number of facilities (262).

Individuals Seeking Help

Kids Help Phone¹⁵⁰ provided CCENDU with data on calls received¹⁵¹ from 1998 to 2002, and Parent Help Line¹⁵² provided data for 2001 and 2002. In 2002, more than two-thirds of all callers to Kids Help Phone for short answer and in-depth counselling were female (73%). Females also accounted for 59% of all calls specifically concerning substance abuse issues. This was relatively stable from 1998 to 2002. In 2002, the overall call volume to Kids Help Phone from kids concerning substance abuse issues, and for which in-depth counselling was required, was 3,195, or 4.4% of the total volume of calls requiring in-depth counselling. There has been a steady decrease since 1998 in the share of call volume concerning substance abuse issues, with some comparative inconsistencies in the actual number of calls (*see Figure 19*).

FIGURE 19: Share of call volume concerning substance abuse issues in comparison to total number of calls, 1998–2002, Kids Help Phone (raw numbers noted)



The substance abuse-specific issues that kids called about and required in-depth counselling for were primarily drugs (59%), followed by alcohol (23%), cigarettes (10%), alcohol and drugs combined (5%), drugs, alcohol and cigarettes combined (2%), drugs

and cigarettes (1%) and alcohol and cigarettes combined (1%). This breakdown remained relatively stable from 1998 to 2002.

Data from Parent Help Line reveals an increase in the number of calls concerning substance abuse¹⁵³ from 637 in 2001 to 936 in 2002. There may be a number of factors influencing the increase in call volume, and it should be noted that the share of call volume concerning substance abuse as a percentage of all calls received was relatively stable between 2000 and 2001 (4.0% vs. 4.7% respectively). In 2001, the majority of parents/caregivers calling about substance abuse issues were for females (66%), whereas in 2002 the majority were for males (65%).

The Canadian Centre on Substance Abuse maintains an on-line database of addiction treatment services¹⁵⁴ in Canada to provide information to individuals seeking assistance for themselves or others and for health care professionals seeking to refer clients in or out of province¹⁵⁵. As of February, 2003¹⁵⁶, 1,012 addiction treatment programs were identified, which is estimated to be approximately 85% of all addiction treatment programs offered in Canada. The setting for which the largest number of treatment services was available was outpatient (618), and the least was medium-term residential (one to three months) (30) (*see Figure 20*)¹⁵⁷. Data for type of addiction treated show that the greatest number of services were identified for alcohol (980) and the least for hallucinogens (543)¹⁵⁸ (*see Figure 21*).

FIGURE 20: Settings in which addiction treatment services are provided, Canada, 2003, Canadian Centre on Substance Abuse¹⁵⁹

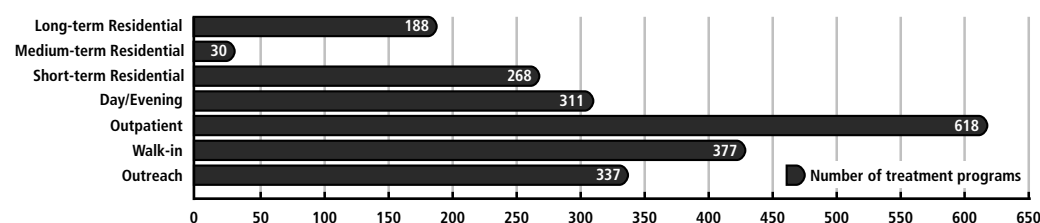
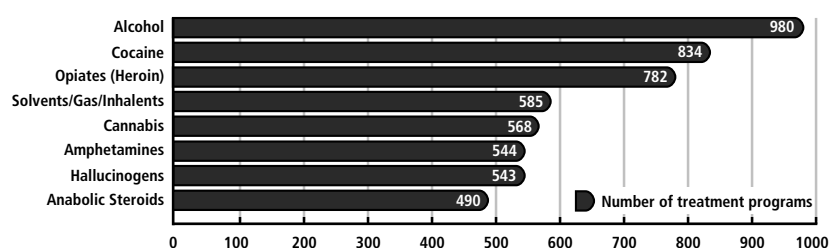


FIGURE 21: Addictions Treated in Programs, 2003, Canadian Centre on Substance Abuse¹⁶⁰



Specific Populations

The 1997 *First Nations and Inuit Regional Longitudinal Health Survey*^{161, 162} concluded that 50% of respondents saw no progress in reducing alcohol and drug abuse in their communities despite considerable resources being devoted to the area. The report of the First Nations and Inuit Regional Health Survey National Steering Committee states:

An examination of the issue of addictions from a holistic world view may conclude that, even with significant increases in funding for addictions treatment, progress will not occur until there are

significant changes in the conditions that lead to the creation of addictions. The lack of perceived progress in this area alone is a major justification for investigating a different model – a model based upon “traditional ways” and “community wellness” (202).

The National Native Alcohol and Drug Abuse Program¹⁶³ (NNADAP) and the National Youth Solvent Abuse Program Treatment Centres Directory¹⁶⁴ provide basic information on all native treatment centres funded by NNADAP^{165, 166, 167}. As of February 2003, a total of 57 treatment centres were identified, nine of which were for solvent abuse. Of the 57 treatment centres, approximately four were designated out-patient only. In total, there were approximately 803 beds, 108 of which were for solvent abuse. The most recent available review¹⁶⁸ of the NNADAP treatment activity reports systems (TARS) (1994–95) reveals: alcohol, narcotics and hallucinogens were the most widely abused substances; approximately 45% of clients were female; the highest numbers of clients were in the 25–34 age group, followed by 16–24 and then 36–44; and approximately two-thirds of individuals completed their treatment program.

A 2001 Correctional Service of Canada study¹⁶⁹ on the impact of institutional methadone maintenance treatment (MMT) on release outcome found that the program had a beneficial effect on outcome following release. It is important to note that there may be substantial differences between those who participate in MMT and those who do not, so caution must be taken in comparing the two on release outcomes. The findings of the study are:

The present study compares post-release outcome and institutional behaviour of MMT participants to a group of offenders who tested positive for heroin use while incarcerated and were assessed as having a substance abuse problem (Non-MMT group). Overall, offenders participating in MMT had lower readmission rates and were readmitted at a slower rate than the Non-MMT group. Within a 12-month period, the Non-MMT group were 28% more likely than the MMT group to be returned to custody. Furthermore, the MMT group were less likely to have been unlawfully at large (UAL) or in violation of an abstinence condition due to alcohol use while on conditional release than Non-MMT offenders. While the MMT and Non-MMT groups were similar in terms of new offence and number and type of new offences committed, the trend in the data was towards a lower rate of reoffending for the MMT group.

NOTES

- 147 Statistics Canada, *Residential Care Facilities Survey, 1998–99*. (Ottawa: Statistics Canada).
- 148 Facilities that reported the specified items.
- 149 This does not include the province of Quebec. Also, the province of Newfoundland and the Territories are not included because of the secrecy requirements of the Statistics Act.
- 150 Kids Help Phone was launched in 1989. It is Canada's only national, bilingual, 24-hour, toll-free, professional telephone counselling and referral service for children and youth in times of difficulty. A Web site was re-launched in September, 2002 and includes on-line counselling.
- 151 The following statements, provided by Kids Help Phone, capture common substance abuse issues that youth call to discuss: I get drunk only on weekends. Do I have a drinking problem?; I have tried to quit doing drugs many times, but I always go back because of my friends; I'd like to quit drinking, but everyone drinks around here. There is nothing else to do; My friend is heavily into drugs. She is in trouble now with her drug dealer. I'm afraid of what might happen to her; My (friend/lover/family member) denies having a drinking problem. What should I do?
- 152 Parent Help Line was launched on May 15, 2000. It is Canada's only national, bilingual, 24-hour, toll-free, professional telephone counselling service that provides parents with support, information, counselling and referrals. Its Web site provides an information library and forums where parents can share their experiences.
- 153 The following statements, provided by the Parent Help Line, capture common substance abuse issues that parents call to discuss: We suspect our daughter is doing drugs. What should we do?; Our son does drugs in the house, has quit school and does nothing all day. We've tried to help, but it is worse than ever. This is unacceptable to us. We are at the end of our rope. What are our options?
- 154 Includes all forms of funded programs – federal, provincial, hospital, private and community.
- 155 The initial collection of treatment program information was in 1994. A list of programs was created using records based on previous national surveys, provincial directories in Quebec, Ontario and British Columbia, Newfoundland, Native Provincial Directories, the National Native Alcohol and Drug Abuse Program treatment directory and local contacts throughout the country.
- 156 Based on a 2000 national update survey and limited consequent information identified by the database manager.
- 157 A treatment program can fit into more than one category.
- 158 Not including gambling (133) and tobacco (98).
- 159 Canadian Centre on Substance Abuse, Addictions Treatment Services Database, February 2003.
- 160 Ibid
- 161 MacMillan, H., C. Walsh, E. Jamieson, A. Crawford and M. Boyd [1999]. *First Nations and Inuit Regional Health Survey*. First Nations and Inuit Regional Health Survey National Steering Committee.
- 162 The Final Report of the First Nations and Inuit Regional Health Survey (FNIRHS) was developed from National Core Data derived from the 1997 National Health Survey of First Nations and Labrador Inuit Communities. The health information collected is on the First Nations in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, and the Inuit peoples of Labrador.
- 163 The aim of the National Native Alcohol and Drug Abuse Program (NNADAP) is to combat alcohol and substance abuse in First Nations communities by providing prevention and treatment services to First Nations persons living on reserves.
- 164 Information collected through phone questionnaires with individual treatment centres.
- 165 Limited funding is also provided by First Nations and Inuit Health Branch (primarily to the Youth Solvent Abuse Program Treatment Centres).
- 166 This treatment information is also accounted for in the CCSA on-line treatment database.
- 167 National Native Alcohol and Drug Abuse Program (2003) forthcoming. *National Native Drug Abuse Program and National Youth Solvent Abuse Treatment Centres Treatment Directory: 2002*. Ottawa: National Native Alcohol and Drug Abuse Program.
- 168 National Native Alcohol and Drug Abuse Program [1996?]. *Literature Review. Evaluation Strategies in Aboriginal Substance Abuse Programs: A Discussion*. Ottawa: First Nations and Inuit Health Branch.
- 169 Johnson, S., J. van den Ven and B. Grant (2001). *Institutional Methadone Maintenance Treatment: Impact on Release Outcome and Institutional Behaviour*. Canada: Correctional Service of Canada.

Morbidity

Post-1997

- In 2000–01, there were an estimated 56,161 hospital separations, both live and dead, attributable to alcohol and drug use as the “most responsible diagnosis” in Canada for individuals 15 years of age and older. There were a further 137,429 hospital separations where alcohol and drug use were responsible to some extent (as opposed to most responsible diagnosis).

Alcohol

- In 2000–01, among those 15 years of age and older, “alcohol dependence syndrome” represented the greatest number of live hospital separations by “most responsible diagnosis”¹⁷⁰ and “all other diagnoses”¹⁷¹ for females (2,378 most responsible and 11,212 all other) and males (5,742 most responsible and 29,285 all other).
- In 2000–01, the greatest number of dead separations (by most responsible diagnosis) were for “alcoholic cirrhosis of the liver” (170 female and 521 male). Alcohol dependence syndrome was the leading cause for all other diagnoses for females (450) and males (1,724).
- In 2000, an estimated 3,372 drivers were involved in alcohol-related serious injury crashes in Canada, which is 18.3% of all serious-injury crashes in Canada. This has declined only slightly from 1995.

Illicit Drugs

- There were an estimated 25,908 live hospital separations due to illicit drug use as the most responsible diagnosis in 2000–01 by individuals 15 years of age and older. There were a further 29,214 live separations in which illicit drug use was responsible to some extent (not most responsible diagnosis).
- In 2000–01, the most common cause of live hospital separations associated with illicit drug use for females and males (by most responsible diagnosis) was “suicide and self-inflicted poisoning by solid or liquid” (11,339 females and 5,826 males).
- Live separations associated with illicit drug use by all other diagnoses for females were greatest for “poisoning by benzodiazepine-

based tranquilizers” (2,530 separations) and for males for “cannabis abuse” (3,199 separations).

- There were 117 dead separations associated with illicit drug use in Canada by most responsible diagnosis (41 females – “suicide and self-inflicted poisoning by solid or liquid” and 76 males – suicide and self-inflicted poisoning by solid or liquid and “poisoning by opiates and related narcotics”). By all other diagnoses, the leading cause for males and females was poisoning by opiates and related narcotics (25 females and 49 males).

Licit/Illicit Drugs

- In 2000–01, there were an estimated 5,502 live hospital separations in which licit/illicit drug use was the primary diagnosis for individuals 15 years of age and older. There were a further 19,385 live separations in which illicit drug use was responsible to some extent (not primary diagnosis).
- In 2000–01, the most common cause of live hospital separations associated with licit/illicit drug use for females and males (by most responsible diagnosis) was “accidental poisoning by drugs, medicament and biologicals” (1,843 females and 1,393 males).
- Live separations for females and males in which licit/illicit drug use was responsible to some extent were greatest for “other, mixed or unspecified drug abuse” (2,776 female and 3,326 male separations).
- As for dead separations associated with licit/illicit drug use (by most responsible diagnosis), one category accounted for all 72 cases – “accidental poisoning by drugs, medicaments and biologicals” (38 separations for males and 34 for females).
- Dead separations in which licit/illicit drug use was responsible to some extent for males during 2000–01 was greatest for “other, mixed or unspecified drug abuse” (41 separations), and leading for females was 12 dead separations due to “unspecified drug dependence”.

Morbidity

Morbidity¹⁷² is defined as the burden of disease related to alcohol and other drug-related¹⁷³ injuries based on diagnosis at the time of hospital separation¹⁷⁴. Data on hospital separations are coded based on the International Classification of Diseases, Injuries, and Causes of Death, 9th revision (ICD-9)¹⁷⁵. There is discrepancy among researchers and health care experts regarding the diagnostic codes associated with alcohol and other drug-related diseases. In this report, the recognized diagnostic codes are those most commonly identified and used among the CCENDU site coordinators and their local site experts. Overall, there was minor variation in the codes used among the local sites in their reports¹⁷⁶.

The data in this section of the report are derived from the Canadian Institute for Health Information, Hospital Morbidity Database, which provides a count of patients separated through discharge or death from a hospital, listed by the primary morbidity (disease) diagnosed, as well as all other contributing diagnoses, up to a maximum of 16¹⁷⁷. The data are categorized by alcohol and drugs, with the latter divided into illicit drug use and combined licit/illicit drug use. Illicit drug use is defined as the non-medical and non-scientific use of drugs that are listed in schedules I, II, III and IV of the Controlled Drugs and Substances Act (e.g., cocaine), as well as drugs that are without doubt reported to be used for a purpose other than for what they were medically intended (categorized as poisoning, and select neo-natal in the International Classification of Diseases, Injuries, and Causes of Death, 9th revision).

Licit/illicit drug use is defined as the use of drugs in which it is not possible to determine (e.g., accidental poisonings) if the purpose of use was medically or scientifically intended or not¹⁷⁸. It is important to note that there is discrepancy among researchers and health care experts on the most accurate categorization of ICD-9 codes for reporting purposes (i.e., illicit vs. licit). The classification chosen for this report, as outlined in the above definitions, was derived from extensive consultation with CCENDU-affiliated experts and the existing ICD-9 coding classification (*see Table 10 at the end of this section for a complete listing of the ICD-9 codes used and their classification as alcohol, licit or licit/illicit*).

Alcohol and Drugs¹⁷⁹

It is estimated that there were 56,161 hospital separations¹⁸⁰ (both live and dead and not including motor vehicle accidents) in Canada for individuals 15 years of age and older during 2000–01 that were attributable to alcohol and drug use^{181, 182} as the most responsible diagnosis¹⁸³. Just over half of these separations were for males (51.8% or 29,096 separations), while the remaining 48.2% were for females (27,065 separations). There were a further 137,429 hospital separations where alcohol and drug use were responsible to some extent (not the most responsible diagnosis)¹⁸⁴. Once again, males comprised more than half of these separations (61.8% or 84,991) compared with females who had 52,438 separations.

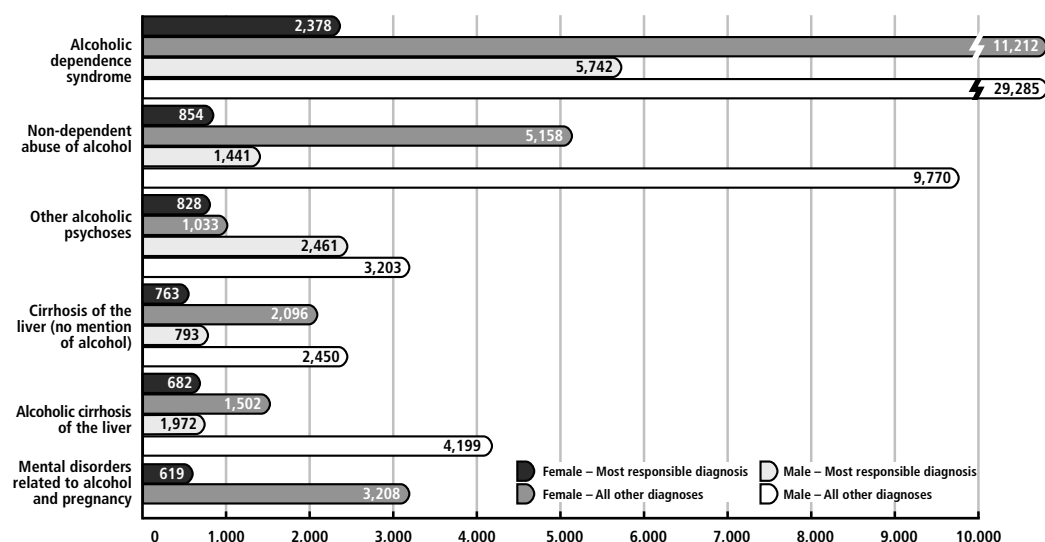
Alcohol

The greatest number of live hospital separations associated with alcohol use for females 15 years of age and older were for “alcohol dependence syndrome” (2,378), followed by “non-dependent abuse of alcohol” (854 separations) and “other alcoholic psychoses” (828). Among males, “alcohol dependence syndrome” was similarly identified as the

leading cause of alcohol-related morbidity (5,742 separations), followed by “other alcoholic psychoses” (2,461) and “alcoholic cirrhosis of the liver” (1,972) (see Figure 22).

The leading cause of morbidity “by all other diagnoses” (not primary diagnosis) in the case of alcohol-related live separations for females 15 years of age and older was “alcohol dependence syndrome” (11,212), followed by “non-dependent abuse of alcohol” (5,158), “mental disorders related to alcohol and pregnancy” (3,208) and “cirrhosis of the liver without mention of alcohol”¹⁸⁵ (2,096). For men, the greatest number of separations involved “alcohol dependence syndrome” (29,285), followed by “non-dependent abuse of alcohol” (9,770), “alcoholic cirrhosis of the liver” (4,199) and “other alcoholic psychoses” (3,203) (see Figure 22).

FIGURE 22: Alcohol-related live separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI¹⁸⁶

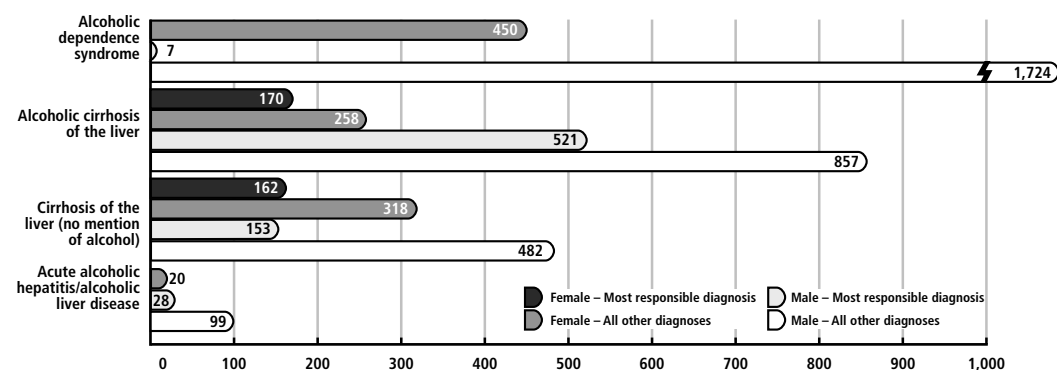


The greatest number of dead separations for females 15 years of age and older in the category of “most responsible diagnosis” involved “alcoholic cirrhosis of the liver” (170) and “cirrhosis of the liver without mention of alcohol” (162). Together, these two categories accounted for nearly all of the recorded “most responsible diagnosis” alcohol deaths¹⁸⁷.

A similar trend was evident among males, with 521 separations attributable to “alcoholic cirrhosis of the liver”, followed by “cirrhosis of the liver without mention of alcohol” (153), and “acute alcoholic hepatitis/acute alcoholic liver disease” (28) (see Figure 23).

A review of dead separations for females in which alcohol use is responsible to some extent (not primary diagnosis) shows that “alcohol dependence syndrome” was the leading cause (450 separations), followed by “cirrhosis of the liver without mention of alcohol” (318 separations) and “alcoholic cirrhosis of the liver” (258 separations). As for dead separations involving males, the leading cause was “alcohol dependence syndrome” (1,724), followed by “alcoholic cirrhosis of the liver” (857) and “cirrhosis of the liver without mention of alcohol” (482) (see Figure 23).

FIGURE 23: Alcohol-related dead separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI¹⁸⁸



The 2002 report of the Traffic Injury Research Foundation of Canada, *The Alcohol-Crash Problem in Canada*¹⁸⁹, estimates that in 2000, 3,372 drivers were involved in alcohol-related serious injury crashes¹⁹⁰ in Canada¹⁹¹. This represents 18.3% of the total of 18,402 drivers involved in serious-injury crashes in that year. In the alcohol-related crashes in which the sex of the driver was known, 20.8% of the crashes involved females. Further, 68% of the crashes involved a single-vehicle collision, and the greatest proportion of crashes occurred among those 26–35 years of age (23.5%) and 20–25 years of age (23.3%).

From 1995 to 2000, alcohol involvement declined only slightly in serious-injury crashes¹⁹². The number of drivers involved in alcohol-related serious injury crashes decreased from 4,000 to 3,205 (see Figure 24). As a percentage of all serious-injury crashes, there was a decline from 20.8% in 1995 to 18.6% in 2000 (see Figure 25).

FIGURE 24: Number of drivers in alcohol-related serious-injury crashes, Canada, 1995–2000, TIRF¹⁹³

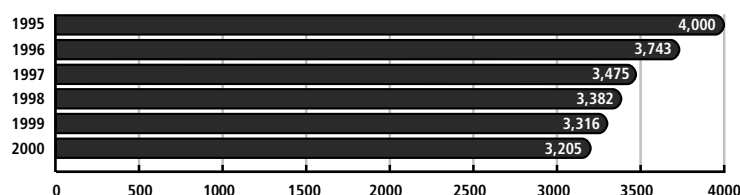
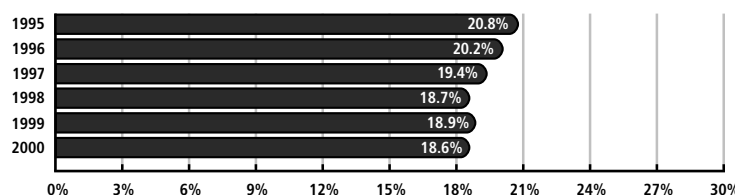


FIGURE 25: Alcohol-related serious-injury crashes as a percentage of all serious-injury crashes, Canada, 1995–2000, TIRF¹⁹⁴



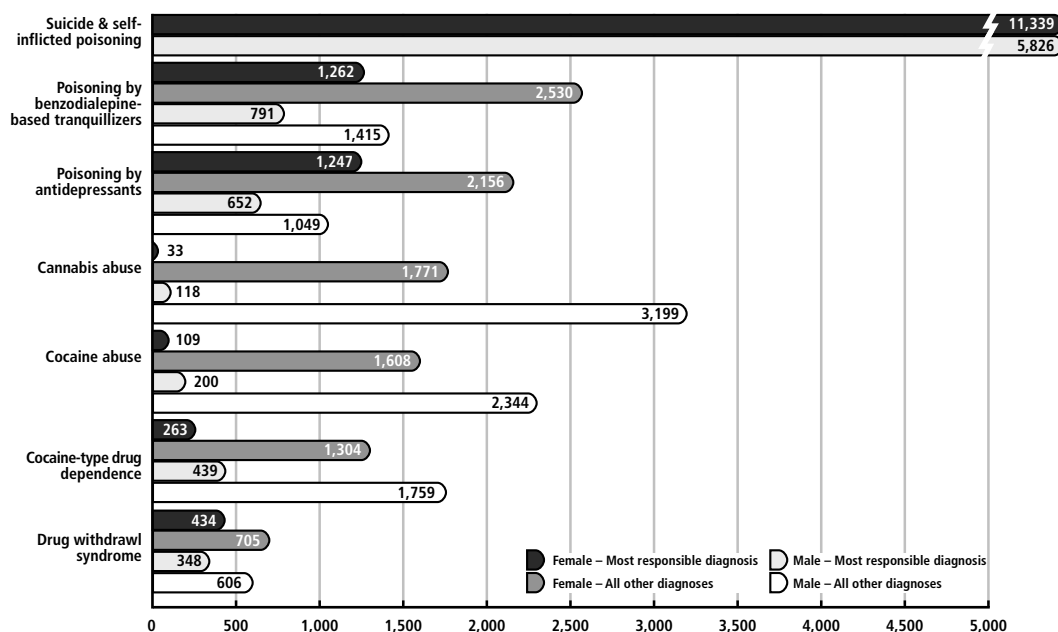
Illicit Drug Use

Illicit drug use is defined as the non-medical and non-scientific use of drugs that are listed in schedules I, II, III and IV of the Controlled Drugs and Substances Act (e.g., cocaine), as well as drugs that are without doubt reported to be used for a purpose other than for what they were medically intended (categorized as poisoning, and select neo-natal in the International Classification of Diseases, Injuries, and Causes of Death, 9th revision). It is estimated that there were 25,908 live separations due to illicit drug use as the primary diagnosis in 2000–01 by individuals 15 years of age and older. Of this total, 63% or 16,214 separations were for females and the remaining 37% (9,694) were for males¹⁹⁶. A further 29,214 live separations in which illicit drug use was responsible to some extent (not primary diagnosis) were recorded for both females and males during 2000–01. Of these separations, 14,712 were for males and 14,502 were for females.

In 2000–01, the most common cause of live separations associated with illicit drug use for females 15 years of age and older, by most responsible diagnosis, was “suicide and self-inflicted poisoning by solid or liquid” (11,339). This was followed by “suicide and self-inflicted poisoning by benzodiazepine-based tranquillizers” (1,262) and “poisoning by antidepressants” (1,247). Similarly, among males the most common diagnosis was “suicide and self-inflicted poisoning by solid or liquid” (5,826), followed by “suicide and self-inflicted poisoning by benzodiazepine-based tranquillizers” (791), and “poisoning by antidepressants” (652) (see Figure 26).

The greatest number of live separations associated with illicit drug use by females for all other diagnoses¹⁹⁷ were for “poisoning by benzodiazepine-based tranquillizers” (2,530), followed by “poisoning by antidepressants” (2,156), “cannabis abuse” (1,771) and “cocaine abuse” (1,608). For males, the most common diagnoses were “cannabis abuse” (3,199), followed by “cocaine abuse” (2,344), “cocaine-type drug dependence” (1,759) and “cannabis-type drug dependence” (1,550) (see Figure 26).

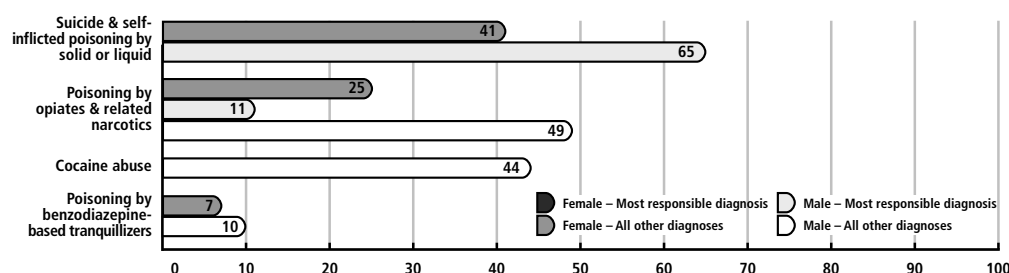
FIGURE 26: Illicit drug use-related live separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI¹⁹⁸



There were 117 dead separations associated with illicit drug use as “most responsible diagnosis” in Canada for individuals 15 years of age and older (41 female and 76 male). Among females, one diagnosis accounted for all of the 41 recorded separations – “suicide and self-inflicted poisoning by solid or liquid”. Among males, two causes comprised the 76 separations – “suicide by self-inflicted poisoning by solid or liquid” (65 separations) and “poisoning by opiates and related narcotics” (11 separations) (*see Figure 27*).

Dead separations for females in 2000–01 in which illicit drug use was responsible to some extent (not primary diagnosis)¹⁹⁹ involved “poisoning by opiates and related narcotics” as the cause of 25 separations, followed by “poisoning by benzodiazepine-based tranquillizers” (7 separations). Among males, the leading cause was the same as for females – “poisoning by opiates and related narcotics” (49 separations) – but was followed by “cocaine abuse” (44 separations) and then “poisoning by benzodiazepine-based tranquillizers” (10 separations) (*see Figure 27*).

FIGURE 27: Illicit drug use-related dead separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI²⁰⁰



Licit/Illicit Drug Use

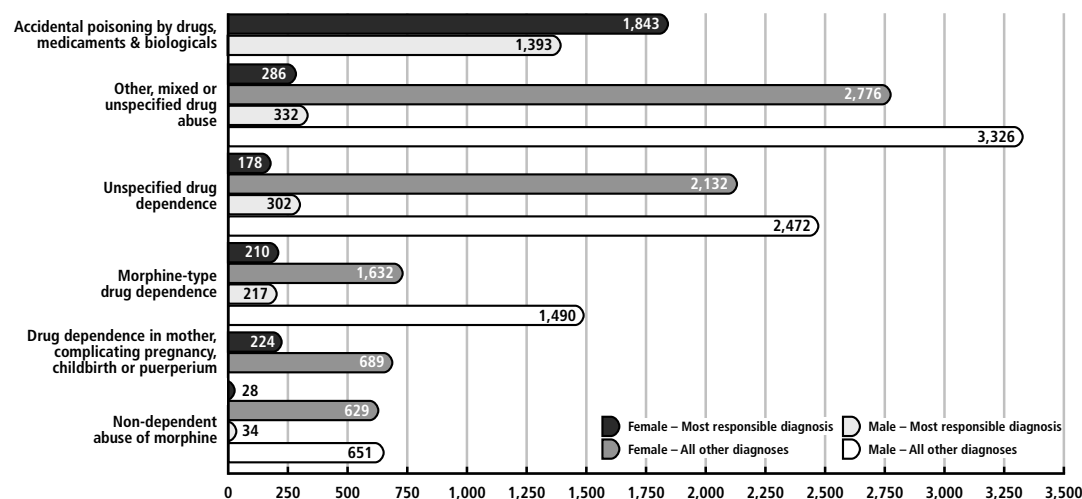
Licit/illicit drug use is defined as the use of drugs in which it is not possible to determine (e.g., accidental poisonings) if the purpose of use was medically or scientifically intended or not. It is estimated that there were 5,502 live separations in which licit/illicit drug use was the primary diagnosis in 2000–01 for individuals 15 years of age and older. Of this total, 54% (2,976 separations) were for females and 46% for males (2,526 separations). An additional 19,385 live separations in which licit/illicit drug use was responsible to some extent were reported in 2000–01. Half of these separations were for males (9,697) and half were for females (9,688).

In 2000–01, the greatest number of live separations associated with licit/illicit drug use by females 15 years of age and older, according to “most responsible diagnosis”, were for “accidental poisoning by drugs, medicaments and biologicals” (1,843 separations), followed by “other, mixed or unspecified drug abuse” (286 separations) and “drug dependence in mother, complicating pregnancy, childbirth or puerperium” (224 separations). Among males, the leading diagnosis was also “accidental poisoning by drugs, medicaments and biologicals” (1,393 separations), followed by “other, mixed or unspecified drug abuse” (332 separations) and “unspecified drug dependence” (302 separations) (*see Figure 28*).

Live separations²⁰¹ for females in which licit/illicit drug use was responsible to some extent were most common for “other, mixed or unspecified drug abuse” (2,776 separations), followed by “unspecified drug dependence” (2,132), “morphine-type drug dependence” (1,632 separations) and “drug dependence in mother complicating pregnancy, childbirth or puerperium” (689 separations). For males, the most common

cause of live separations in which licit/illicit drug use was responsible to some extent was also “other, mixed or unspecified drug abuse” (3,326 separations), followed by “unspecified drug dependence” (2,472), “morphine-type drug dependence” (1,490 separations) and “non-dependent abuse of morphine” (651 separations) (*see Figure 28*).

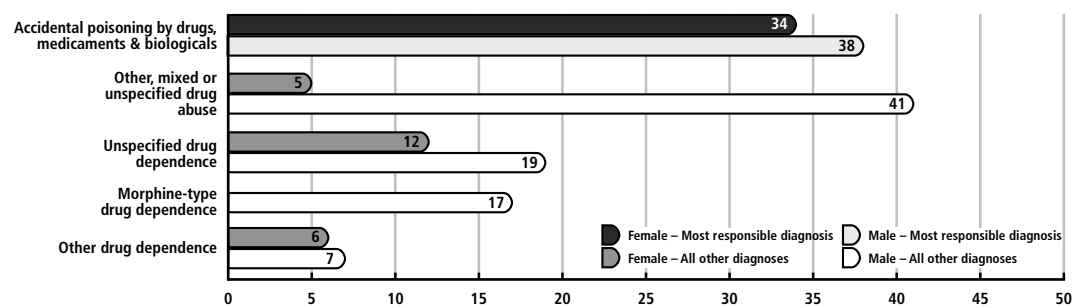
FIGURE 28: Licit/illicit drug use-related live separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI²⁰²



As for dead separations associated with licit/illicit drug use by males and females 15 years of age and older in Canada, by most responsible diagnosis, one category alone comprised the 72 reported cases²⁰³ – “accidental poisoning by drugs, medicaments and biologicals”. There were 38 separations for males and 34 for females (*see Figure 29*).

Dead separations in which licit/illicit drug use was responsible to some extent²⁰⁴ for males during 2000–01 was greatest for “other, mixed or unspecified drug abuse” (41 separations), followed by “unspecified drug dependence” (19) and “morphine-type drug dependence” (17 separations). Among females, there were 12 separations due to “unspecified drug dependence”, followed by “other drug dependence” (6) and “other, mixed or unspecified drug abuse” (5) (*see Figure 29*).

FIGURE 29: Licit/illicit drug use-related dead separations, by most responsible diagnosis and all other diagnoses, by sex, Canada, 2000–01, CIHI²⁰⁵



Substances Causing Adverse Effects in Therapeutic Use (E930–939)²⁰⁶

In 2000–01, there were 42,064 live separations for males and females 15 years of age and older in which the most responsible diagnosis was for “substances causing adverse effects in therapeutic use”. The majority of these separations were for females (24,297 or 57.8%) while the remaining 42.2% (17,767) were for males. Further, there were 2,285 dead separations by most responsible diagnosis for both males and females. Males represented the majority of these separations (1,177 or 51.5%) while females accounted for 1,108 separations (48.5%).

Accidental poisoning by analgesics, antipyretics, antirheumatics (E980–980.5)²⁰⁷

In 2000–01, there were 2,354 live separations by most responsible diagnosis for “accidental poisoning by analgesics, antipyretics, antirheumatics”. The majority of these separations were for females (1,323 or 56.2%) while the remaining 43.8% or 1,031 separations were for males. There were 27 dead separations for both males and females by most responsible diagnosis. Males represented the majority of these separations (22 separations or 81.5%) while females accounted for five separations (18.5%).

TABLE 10: ICD-9 coding classification

DIAGNOSIS	ICD9	Alcohol	Illicit	Licit/Illicit
Delirium tremens	291.0	✓		
Korsakov's psychosis, alcoholic	291.1	✓		
Other alcoholic dementia	291.2	✓		
Other alcoholic hallucinosis	291.3	✓		
Pathological drunkenness	291.4	✓		
Alcoholic jealousy	291.5	✓		
Other alcoholic psychoses	291.8	✓		
Unspecified	291.9	✓		
Drug withdrawal syndrome	292.0		✓	
Alcoholic dependence syndrome	303.0	✓		
Cocaine-type drug dependence	304.2		✓	
Cannabis-type drug dependence	304.3		✓	
Morphine-type drug dependence	304.0			✓
Combinations of morphine-type with other	304.7			✓
Amphetamine-type drug dependence	304.4			✓
Hallucinogen-type drug dependence	304.5			✓
Other drug dependence	304.6			✓
Combinations excluding morphine-type	304.8			✓
Unspecified	304.9			✓
Nondependent abuse of antidepressant	305.8			✓
Other, mixed or unspecified	305.9			✓
Hallucinogens	305.3		✓	
Barbiturates & tranquilizers	305.4			✓
Amphetamine, non-dependent	305.7			✓
Morphine, non-dependent	305.5			✓
Non-dependent abuse of alcohol	305.0	✓		
Cocaine abuse	305.6		✓	
Cannabis, non-dependent	305.2		✓	
Alcoholic polyneuropathy	357.5	✓		
Alcoholic cardiomyopathy	425.5	✓		
Alcoholic gastritis	535.3	✓		
Alcoholic fatty liver	571.0	✓		
Acute alcoholic hepatitis	571.1	✓		
Alcoholic cirrhosis of liver	571.2	✓		
Alcoholic liver damage, unspecified	571.3	✓		
Cirrhosis of liver without mention of alcohol	571.5	✓		
Unspecified chronic liver disease, no mention of alcohol	571.9	✓		
Acute pancreatitis	577.0	✓		
Chronic pancreatitis	577.1	✓		
Excessive blood level of alcohol	790.3	✓		
Poisoning by opiates & related narcotics	965.0		✓	
Poisoning by barbiturates	967.0		✓	
Poisoning by chloral hydrate group	967.1		✓	
Poisoning, other sedatives	967.8		✓	
Poisoning, unspecified sedatives, hypnotics	967.9		✓	
Cocaine Poisoning	968.5		✓	
Poisoning by antidepressants	969.0		✓	
Poisoning by phenothiazine-based tranquilizers	969.1		✓	
Poisoning by butyrophenone-based tranquilizers	969.2		✓	
Poisoning by other antipsychotics	969.3		✓	
Poisoning by benzodiazepine-based tranquilizers	969.4		✓	
Poisoning by other tranquilizers	969.5		✓	
Psychotropic Poisoning	969.6		✓	
Poisoning by psychostimulants	969.7		✓	
Poisoning by unspecified psychotropic agents	969.8		✓	
Poisoning by unspecified drug or medicament	977.9		✓	
Toxic effect of ethyl alcohol	980.0	✓		
Toxic effect of methyl alcohol	980.1	✓		
Toxic effect of isopropyl alcohol	980.2	✓		
Toxic effect of unspecified alcohol	980.9	✓		
Accidental poisoning by alcohol, not elsewhere	E860.0	✓		
Accidental poisoning-other and unspecified Ethyl Alcohol	E860.1	✓		
Accidental poisoning by drugs, medicaments & biologicals	E850-858			✓
Substances Causing Adverse effects in therapeutic use	E930-939			✓
Suicide & self inflicted poisoning by solid or liquid	E950-950.5		✓	
Accidental poisoning by analgesics, antipyretics, antirheumatics	E980-980.5			✓
Drug dependence in mother, complicating pregnancy, childbirth or puerperium	648.3			✓
Alcohol and pregnancy	648.4	✓		
Suspected damage to fetus from drugs	655.5			✓
Noxious influences transmitted by placenta	760.7		✓	

NOTES

- 170 Each individual accounts for one separation.
- 171 An individual can account for more than one separation.
- 172 The section reports on data acquired from the Canadian Institute for Health Information (analysis and interpretation by K. Garabedian and C.A. Dell) and D. Mayhew, J. Brown and H. Simpson (2001). *The Alcohol-Crash Problem in Canada: 2000. Ottawa: The Traffic Injury Research Foundation of Canada.*
- 173 To simplify the presentation of the data for the reader in this section on morbidity as well as the next section on mortality, the word "related" is only used for "all other diagnoses" (not most responsible or primary diagnosis).
- 174 Reason for treatment/discharge from a hospital.
- 175 In 2001–02, ICD-9 will be replaced with ICD-10 CA (International Statistical Classification of Diseases and Related Health Problems, Tenth Revision). The year of implementation by province/territory is: 2001 (British Columbia, Newfoundland, Nova Scotia, Prince Edward Island, Saskatchewan [partial], Yukon) and 2002 (Alberta, Northwest Territories, Nunavut, Ontario, Saskatchewan [complete]).
- 176 Two ICD-9 codes used in this report are not commonly used among the local sites, and so the data are presented separately: (1) E930–949 – Substances causing adverse effects in therapeutic use, and (2) E980–980.5 – Accidental poisoning by analgesics, antipyretics, antirheumatics.
- 177 In accordance with the Canadian Institute for Health Information guidelines on privacy and confidentiality, diagnoses with less than five patients are suppressed and consequently not included in the final figures. This point is especially important when examining dead separations since small numbers (less than five) exist in numerous diagnoses.
- 178 An example of how a drug can be classified as both licit and illicit can be drawn from ICD-9 code 305.7, amphetamine or related acting sympathomimetic abuse. The public commonly uses prescription sympathomimetic agents, in particular for treating diseases such as asthma and narcolepsy – thus the use of this drug is licit. Further, examples of non-prescription (licit use) sympathomimetic agents include over-the-counter agents such as ephedrine and pseudoephedrine. However, this code can also include illegal street drugs (e.g., cocaine, amphetamines, methamphetamines) and the very popular illicit designer drugs (e.g., MDMA, ecstasy). Paul Krolecki, MD, Assistant Professor, Department of Surgery, Division of Emergency Medicine, Thomas Jefferson University: www.emedicine.com/EMERG/topic562.htm.
- 179 Drugs = selected illicit and licit.
- 180 These separations refer to acute care in hospital separations/discharges by residence of inpatient in Canada (excluding newborns and records with serious errors).
- 181 Hospital Morbidity Database 2000–01, Canadian Institute for Health Information.
- 182 See Table 10 for a listing of the ICD-9 codes.
- 183 Most responsible diagnosis refers to the findings by the physician as to the primary cause of illness or disease. Each individual accounts for one separation.
- 184 These are cases where a selected cause of disease is not considered the primary cause of illness by the physician. This category considers all other diagnoses (up to 16) other than the most responsible. Here, an individual can account for more than one separation.
- 185 This finding should be interpreted with caution because this disease accounts substantially for causes other than alcohol.
- 186 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 187 Note that there are diagnoses that contain under five deaths but the data are suppressed.
- 188 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 189 Mayhew, D., S. Brown and H. Simpson (2002). *The Alcohol-Crash Problem in Canada: 2000. Ottawa: The Traffic Injury Research Foundation of Canada.*

- 190 According to *The Alcohol-Crash Problem in Canada: 2000*, “[a] “surrogate” or “indirect” measure is used to estimate alcohol involvement because drivers in serious injury crashes are seldom tested for alcohol. A driver is identified as having been involved in an alcohol-related serious injury crash if the crash in which someone was seriously injured involved a single vehicle, at night (SVN), or if, in the case of a non-SVN serious crash injury, the police reported alcohol involvement” (31).
- 191 Excludes British Columbia.
- 192 Excludes drivers of bicycles, snowmobiles, farm tractors and other non-highway vehicles. Canada total does not include British Columbia, the Yukon and Northwest Territories because the relevant information was not collected.
- 193 Mayhew, D., S. Brown and H. Simpson (2002). *The Alcohol-Crash Problem in Canada: 2000*. Ottawa: The Traffic Injury Research Foundation of Canada.
- 194 Ibid.
- 195 For a full explanation of the definition of illicit and licit/illicit drug use, see the beginning of this section of the report.
- 196 The greater number of women in this grouping is primarily due to ICD-9 codes E950–950.5, “suicide and self-inflicted poisoning by solid or liquid”.
- 197 E codes are not available for “all other diagnoses”. E-coding (E800–E999) provides a framework for systematically collecting population-based information on external cause of injuries, poisonings, and adverse effects. This information includes how the injury or poisoning happened (cause), the intent (unintentional or accidental; or intentional, such as suicide or assault), and the place where the event occurred. Table 10 provides a listing of all ICD-9 codes including those categorized as E-codes.
- 198 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 199 See Note 197.
- 200 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 201 See Note 197.
- 202 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 203 Note that there are diagnoses that contain under five deaths but the data are suppressed.
- 204 See Note 197.
- 205 Hospital Morbidity Database, 2000–01, Canadian Institute for Health Information. Analysis and interpretation by K. Garabedian and C.A. Dell.
- 206 The separations under this ICD-9 diagnosis category are not included in the total separations discussed at the beginning of this section on morbidity because the category is not commonly identified by the CCENDU site coordinators or their representatives (only identified by one site).
- 207 Ibid.

Mortality

Post-1997

- In 1999, there were 4,502 deaths in Canada in which alcohol or drugs were the underlying cause for individuals 15 years of age and older. This is a decrease from 4,576 deaths in 1998.

Alcohol

- In 1999, there were 3,139 deaths attributable to alcohol use (not including motor vehicle accidents) for those 15 and older in Canada. This is a decrease from 3,231 in 1998.
- In 1999, the leading cause of alcohol-attributed mortality for females was "cirrhosis of the liver without mention of alcohol" (409), followed by "alcoholic cirrhosis of the liver" (172). For males, the leading causes were alcoholic cirrhosis of the liver (609) and cirrhosis of the liver without mention of alcohol (596). There were similar findings for both males and females in 1998.
- There was a decrease from 1995 to 2000 in alcohol-related crashes resulting in death as a percentage of all crashes resulting in death (from 38.8% to 30.2%). In 2000, an estimated 1,069 people died in alcohol-related crashes in Canada. Eighty-two percent of the deceased were male.

Illicit Drugs

- There were 517 illicit drug-attributed deaths in 1999 (267 males and 250 females) for individuals 15 and older. This is an increase from 497 in 1998 (256 males and 241 females).
- In 1999, "suicide and self-inflicted poisoning by solid or liquid" accounted for the overwhelming majority of illicit drug deaths for males (262) and females (249). There was an increase from 1998 (males 245 and females 240).

Licit/Illicit Drugs

- In 1999, there were 846 deaths attributable to licit/illicit drugs (592 males and 253 females) for individuals 15 and older. This is a slight increase from the 1998 total of 848 (617 males and 231 females).
- In 1999, the majority of licit/illicit drugs deaths were a consequence of "accidental poisoning by drugs, medicaments and biologicals" for both males (562) and females (234). In comparison to 1998, there again was an increase for females (213), but a decrease for males (586).

Mortality

Mortality is defined as the number of cases where death is directly attributable to alcohol or other drugs²⁰⁸. The data in this section of the report originate from Health Canada's Vital Statistics Database, which contains information on all deaths in Canada. However, only the "underlying cause of death" data are released²⁰⁹ (similar to "most responsible diagnosis"). Similar to the morbidity data, the mortality data are coded based on the International Classification of Diseases, Injuries and Causes of Death, 9th revision (ICD-9)^{210, 211}. It follows that not all alcohol- and drug-related causes of death are captured.

In 1999, there were 219,530 deaths registered in Canada (males 113,007 and females 105,084), representing a rate of 7.2 deaths per 1,000 individuals (males 7.25 and females 6.9). Of these deaths, 4,502 were alcohol- or drug-related²¹². The total number of deaths attributable to alcohol and drugs decreased from 4,576 deaths in 1998. More specifically, among females there was an increase in both licit/illicit drug deaths (from 231 in 1998 to 253 in 1999) and illicit drug deaths (from 241 in 1998 to 250 in 1999). Among males there was a decrease in licit/illicit drug deaths (from 617 in 1998 to 593 in 1999) and an increase in illicit drug deaths (from 256 in 1998 to 267 in 1999). There was a slight decrease in alcohol-related deaths from 1998 to 1999 among both females (993 in 1998 and 975 in 1999) and males (2,238 in 1998 and 2,164 in 1999).

Alcohol

In 1999, there were 3,139 deaths attributable to alcohol use (not including motor vehicle accidents) in Canada. This represents a decrease from 3,231 in 1998. In 1999, the leading cause of alcohol-attributed mortality for females was "cirrhosis of the liver without mention of alcohol"²¹³ (409), followed by "alcoholic cirrhosis of the liver" (172), "acute pancreatitis"²¹⁴ (141) and "alcohol dependence syndrome" (125). There were similar findings for 1998: cirrhosis of the liver without mention of alcohol (396), alcoholic cirrhosis of the liver (183), acute pancreatitis (136) and alcohol dependence syndrome (113). As a proportion of all alcohol-attributed mortality for females in 1999, cirrhosis of the liver without mention of alcohol accounted for 41.9%, alcoholic cirrhosis of the liver 17.6%, acute pancreatitis 14.5% and alcohol dependence syndrome 12.8% (*see Table 11*).

The leading causes of alcohol-attributed deaths in Canada among males in 1999 were alcoholic cirrhosis of the liver (609), cirrhosis of the liver without mention of alcohol (596), alcohol dependence syndrome (427) and acute pancreatitis (145). There were similar findings in 1998: alcoholic cirrhosis of the liver (615), cirrhosis of the liver without mention of alcohol (607), alcohol dependence syndrome (457) and acute pancreatitis (148). As a proportion of all alcohol-attributed mortality for males in 1999, alcoholic cirrhosis of the liver accounted for 28.1%, cirrhosis of the liver without mention of alcohol 27.5%, alcohol dependence syndrome 19.7% and acute pancreatitis 6.7% (*see Table 11*).

TABLE 11: Female and male alcohol-attributed mortality, Canada, Statistics Canada, 1998 and 1999²¹⁵

	Alcohol Dependence Syndrome	Alcoholic Cirrhosis of the Liver	Cirrhosis of the Liver Without Mention of Alcohol	Acute Pancreatitis	Other	Total*
1999 FEMALE						
Number	125	172	409	141	128	975
Percentage**	12.8%	17.6%	41.9%	14.5%	13.1%	100%
1999 MALE						
Number	427	609	596	145	387	2,164
Percentage**	19.7%	28.1%	27.5%	6.7%	17.9%	100%
1998 FEMALE						
Number	113	183	396	136	165	993
Percentage**	11.4%	18.4%	39.9%	13.7%	16.6%	100%
1998 MALE						
Number	457	615	607	148	411	2,238
Percentage**	20.4%	27.5%	27.1%	6.6%	18.4%	100%

*Numbers may not total 100% due to rounding

**As a percentage of all alcohol-attributed mortality by sex.

The Traffic Injury Research Foundation of Canada, in its 2002 report entitled *The Alcohol-Crash Problem in Canada: 2000*^{216, 217}, estimated that 3,162 people died²¹⁸ in motor vehicle crashes in Canada during 2000²¹⁹. Of the 981 cases known to involve alcohol, it was estimated that 1,069 people died in alcohol-related crashes. In the alcohol-related crashes in which the sex of the deceased was known, 81.5% were male. Further, 65% of deaths were the driver/operator, 22% the passenger, 11.7% a pedestrian and 1% were unknown. The greatest proportion of deaths occurred among those 26–35 years of age (25.3%).

The number of deaths in crashes dropped from 1,296 in 1995 to 864 in 2000 if we focus only on deaths that occurred in crashes involving at least one drinking driver (e.g., not accounting for pedestrians) and on public roadways involving principal vehicle types (see Figure 30). This translates into a decrease in the percentage of alcohol-related fatalities as a percentage of all crashes resulting in death in Canada from 38.8% in 1995 to 30.2% in 2000 (see Figure 31).

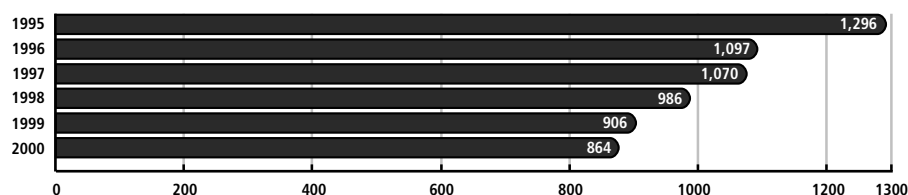
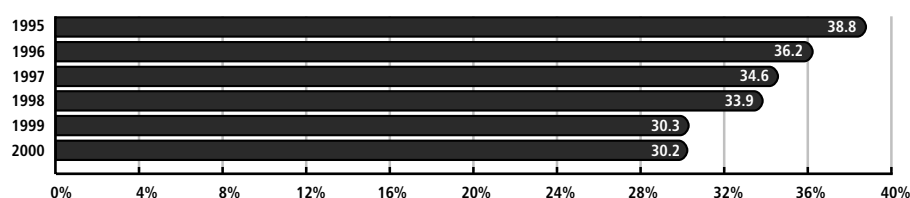
FIGURE 30: Number of deaths involving a drinking driver, on public roadways and involving principal vehicle type, Canada, 1995–2000, TIRF²²⁰

FIGURE 31: Alcohol-related crashes resulting in death as a percentage of all crashes resulting in death, Canada, 1995–2000, TIRF²²¹



Drugs

In 1999, there were 1,363 deaths attributable to licit and licit/illicit drug use²²² in Canada. This represents an increase from 1998 when 1,345 deaths were attributable to drug use.

Illicit Drug Use

The definition of illicit drug use adopted to categorize the mortality data follows the definition outlined for use with the morbidity data, as outlined in the previous section. Overall, there were 517 illicit drug-attributed deaths in 1999 (267 males and 250 females). This is an increase from 497 in 1998 (256 males and 241 females).

The leading cause of death attributable to illicit drug use for females in 1999 was “suicide and self-inflicted poisoning by solid or liquid” (249), followed by “cocaine abuse” (1). There was little change from 1998, in which 240 deaths were attributable to suicide and self-inflicted poisoning by solid or liquid and again one death due to cocaine abuse. As a proportion of all illicit drug attributed mortality for females in 1999, suicide and self-inflicted poisoning by solid or liquid accounted for 98.1% and cocaine abuse 1.9% (*see Table 12*).

Among males in 1999, the leading causes of illicit drug-attributed death were similar to females, that is, suicide and self-inflicted poisoning by solid or liquid (262) and cocaine abuse (5). There was some change for males since 1998 when 245 illicit drug deaths were attributable to suicide and self-inflicted poisoning by solid or liquid, 10 to cocaine abuse and 1 to “cocaine-type drug dependence”. As a proportion of all illicit drug-attributed mortality for males in 1999, suicide and self-inflicted poisoning by solid or liquid accounted for 95.7%, cocaine abuse 3.9% and cocaine-type drug dependence 0.4% (*see Table 12*).

TABLE 12: Female and male illicit drug-attributed mortality, Canada, Statistics Canada, 1998 and 1999²²³

	Suicide and Self-inflicted Poisoning by Solid or Liquid	Cocaine Abuse	Cocaine-type Drug Dependence	Total*
1999 FEMALE				
Number	262	5	0	267
As a percentage of all female illicit-drug attributed mortality	98.1%	1.9%	0	100%
1999 MALE				
Number	249	1	0	250
As a percentage of all male illicit-drug attributed mortality	99.6%	0.4%	0	100%
1998 FEMALE				
Number	240	1	0	241
As a percentage of all female illicit-drug attributed mortality	99.6%	0.4%	0	100%
1998 MALE				
Number	245	10	1	256
As a percentage of all male illicit-drug attributed mortality	95.7%	3.9%	0.4%	100%

*Numbers may not total 100% due to rounding

Licit/Illicit Drug Use

Licit/illicit drug use is defined in the previous section on morbidity. In 1999, there were 846 deaths attributable to licit/illicit drugs (592 males and 253 females). This is a slight increase from the 1998 total of 848 (617 males and 231 females).

The majority of deaths among females in 1999 were a consequence of “accidental poisoning by drugs, medicaments and biologicals” (234), followed by “other, mixed or unspecified drug abuse” (13) and “unspecified drug dependence” (3). In 1998, the majority of licit/illicit drug deaths were similarly accidental poisoning by drugs, medicaments and biologicals (213), other, mixed or unspecified drug abuse (15) and unspecified drug dependence (3). In 1999, as a proportion of all licit/illicit drug-attributed mortality for females, accidental poisoning by drugs, medicaments and biologicals accounted for 92.5%, other, mixed or unspecified drug abuse 5.1% and unspecified drug dependence 1.2% (*see Table 13*).

As with females, the leading cause of licit/illicit drug use death among males was accidental poisoning by drugs, medicaments and biologicals (562), followed by other, mixed or unspecified drug abuse (25), unspecified drug dependence (4), “morphine-type drug dependence” (1) and “amphetamine non-dependent” (1). In 1998, the causes were similarly accidental poisoning by drugs, medicaments and biologicals (586), followed by other, mixed or unspecified drug abuse (22), unspecified drug dependence (5), morphine-type drug dependence (2), as well as “barbiturates and tranquillizers” (1) and “morphine non-dependent” (1). As a proportion of all licit/illicit drug-attributed mortality for males in 1999, accidental poisoning by drugs, medicaments and biologicals accounted for 94.8%, other, mixed or unspecified drug abuse 4.2%, unspecified drug dependence 0.7%, morphine-type drug dependence 0.2% and amphetamine non-dependent 0.2% (*see Table 13*).

TABLE 13: Female and male licit/illicit drug-attributed mortality, Canada, Statistics Canada, 1998 and 1999²²⁴

	Accidental Poisoning by Drugs, Medicaments and Biologicals	Other Mixed or Unspecified Drug Abuse	Unspecified Drug Dependence	Morphine-type Drug Dependence	Amphetamine Non-dependent	Morphine Non-dependent	Barbiturate and Tranquillizers	Combinations Excluding Morphine-type	Total*
1999 FEMALE									
Number	234	13	3	2	0	0	0	1	253
Percentage**	92.5%	5.1%	1.2%	0.8%	0	0	0	0.4%	100%
1999 MALE									
Number	562	25	4	1	1	0	0	0	593
Percentage**	94.8%	4.2%	0.67%	0.17%	0.17%	0	0	0	100%
1998 FEMALE									
Number	213	15	3	0	0	0	0	0	231
Percentage**	92.2%	6.5%	1.3%	0	0	0	0	0	100%
1998 MALE									
Number	586	22	5	2	0	1	1	0	617
Percentage**	95.0%	3.6%	0.81%	0.32%	0	0.16%	0.16%	0	100%

*Numbers may not total 100% due to rounding

**As a percentage of all licit/illicit drug-attributed mortality by sex.

NOTES

- 208 The primary difference between dead hospital separation data as presented in the previous section and death data as presented in this section is that the former accounts for in-hospital deaths, whereas the latter accounts for all deaths in Canada.
- 209 Data on causes of death other than the underlying cause are collected; however, currently there is incomplete provincial coverage and incomplete recording of multiple causes.
- 210 In 2001–02, ICD-9 will be replaced by ICD-10 CA (International Statistical Classification of Diseases and Related Health Problems, 10th Revision). The year of implementation by province/territory is: 2001 (British Columbia, Newfoundland, Nova Scotia, Prince Edward Island, Saskatchewan [partial], Yukon) and 2002 (Alberta, Northwest Territories, Nunavut, Ontario, Saskatchewan [complete]).
- 211 Note that the Canadian Institute for Health Information (morbidity data) and Statistics Canada (mortality data) do not apply the “exact” same rules in their coding methodology.
- 212 The data were obtained and tabulated from the 1998 and 1999 Causes of Death Shelf Tables available from Statistics Canada. See Table 10 in the previous section for a listing of all ICD-9 codes used.
- 213 This finding should be interpreted with caution because this disease accounts substantially for causes other than alcohol.
- 214 Both acute and chronic pancreatitis have causes other than alcohol and thus should be interpreted cautiously.
- 215 Causes of Death, Shelf Tables, 1999 and 1998, Statistics Canada, Health Statistics Division.
- 216 Mayhew, D., S. Brown and H. Simpson (2000). *The Alcohol-Crash Problem in Canada: 2000*. Ottawa: Traffic Injury Research Foundation of Canada.
- 217 Information is drawn from two national databases compiled and maintained by the Traffic Injury Research Foundation (TIRF): the Fatality Database contains information on persons fatally injured in motor vehicle crashes, and the Serious Injury Database has information on persons seriously injured in motor vehicle crashes.
- 218 “Died” is defined as persons dying within 12 months following collisions on and off public roadways. Includes all types of motorized vehicles on both public roadways and in off-road locations.
- 219 In all vehicle crashes in which an individual was killed, it was possible to determine in 91.8%, or 2,902 deaths, if alcohol was involved.
- 220 Mayhew, D., S. Brown and H. Simpson (2002). *The Alcohol-Crash Problem in Canada: 2000*. Ottawa: Traffic Injury Research Foundation of Canada.
- 221 Ibid.
- 222 Definitions of illicit and licit/illicit drug use are presented in the morbidity section of this report.
- 223 Causes of Death, Shelf Tables, 1999 and 1998, Statistics Canada, Health Statistics Division.
- 224 Ibid.



HIV/AIDS/HEP C

Post-1997

HIV

- Up to December 31, 2001, there were 3,987 positive HIV cases among adults 15 and older in which injection drug use was identified as the risk factor. Females accounted for 31% of these cases and males 69%.
- Between 1996 and 2001, injection drug use as a risk factor for HIV has decreased substantially for females, from 51.1% of all adult female cases in 1996 to 31.6% in 2001. For males, it decreased only slightly – from 28.7% of all male cases in 1996 to 22.4% in 2001.

HEP C

- Injection drug use and the sharing of needles is the main cause of hepatitis C in Canada. It accounts for approximately 70% of all new infections.

HIV/AIDS/HEP C

Health Canada's Laboratory Centre for Disease Control²²⁵ provides data on the number of positive HIV cases among adults aged 15 and older in which injection drug use (IDU) was identified as the risk factor²²⁶. These data show that up to December 31, 2001, there were a total of 1,219 cases among women and 2,768 among men. Table 14 shows that for both females and males there has been a decrease over time in absolute numbers of IDU as a risk factor for HIV. However, as a risk factor for HIV, IDU is high in comparison with other risk factors for both females and males. Between 1985 and 2001, IDU accounted for an average of 41.5% of all female HIV cases and only 23% of all male HIV cases. Further, during a recent six-year period (1996–2001), there was a substantial decrease in female cases in which IDU was the risk factor for HIV (from 51.1% of all adult female cases in 1996 to 31.6% in 2001), while it has decreased only slightly for males (from 28.7% of all adult male cases in 1996 to 22.4% in 2001) (*see Table 15*).

TABLE 14: Number of positive HIV test reports among adult females and males, by injection drug use exposure and year of test, 15 years of age and older, Health Canada²²⁷

IDU Exposure	1985–95	1996	1997	1998	1999	2000	2001	TOTAL
Female	534	159	125	97	126	95	83	1,219
Male	1,313	333	310	233	199	196	184	2,768

TABLE 15: Injection drug use as a risk factor, in comparison to all other risk factors, for females and males with positive HIV test reports, by year of test, 15 years of age and older, Health Canada²²⁸

IDU as risk factor for all positive HIV test reports	1985–95	1996	1997	1998	1999	2000	2001	Average
Female	36.2%	51.1%	45.0%	38.8%	47.9%	39.6%	31.6%	41.5%
Male	8.2%	28.7%	30.2%	26.0%	23.0%	22.5%	22.4%	23.0%

The Enhanced Hepatitis Strain Surveillance System (EHSSS) contributes data on newly infected acute and chronic hepatitis C and hepatitis B infections, risk factors associated with infection, and, in partnership with the NML viral hepatitis genotype, viral mutant information. This information is coordinated by the Blood Safety Surveillance and Health Care Acquired Infection Division, Population and Public Health Branch, Health Canada. Although not reported here, this information is being sought for future inclusion (i.e., number of acute and chronic hepatitis C and hepatitis B cases attributable to injection drug use and other drug paraphernalia such as straws and cookers). As of 1999, all provinces and territories report hepatitis C infections to Health Canada through the National Notifiable Disease Reporting System (NNDRS) (LCDC 1999:1²²⁹). These reported cases are unable to distinguish between acute and chronic hepatitis C and hepatitis B. Data from the EHSSS and published studies have shown that injection drug use and the sharing of needles is the primary mode of hepatitis C transmission in Canada and it accounts for approximately 70% of all new infections (LCDC 1999:2)²³⁰.

NOTES

- 225 Health Canada. *HIV and AIDS in Canada. Surveillance Report to December 31, 2001* (2002). Division of HIV/AIDS Epidemiology and Surveillance, Bureau of HIV/AIDS, STD and TB, Centre for Infectious Disease Prevention and Control, Health Canada.
- 226 Other exposure categories include, for example, blood/blood products and heterosexual contact/endemic.
- 227 Health Canada. *HIV and AIDS in Canada. Surveillance Report to December 31, 2001* (2002). Division of HIV/AIDS Epidemiology and Surveillance, Bureau of HIV/AIDS, STD and TB, Centre for Infectious Disease Prevention and Control, Health Canada.
- 228 Ibid.
- 229 Laboratory Centre for Disease control (LCDC) (1999). *Hepatitis C Prevention and Control: A Public Health Consensus*. The Canadian Communicable Diseases Report. 25 (supp 1). pp. 1–25.
- 230 Ibid.

CCENDU site data on substance use and abuse

This section summarizes the local CCENDU site reports for 2002. The reports are presented at the annual CCENDU meeting, typically held in the autumn of each year. For CCENDU sites that did not produce a report in 2002, their annual meeting presentations are summarized (and noted as such) and, if available, a summary of their 2001 report is provided. Reports for 2002 cover data from 2001 and reports for 2001 cover data from 2000. These are presented alphabetically.

2002 reports and updates²³¹

Calgary, Alberta (Annual meeting update not available)

Edmonton, Alberta (Annual meeting update)

According to the 2001–02 Alberta Alcohol Survey, 78.1% of Edmonton respondents reported being current drinkers and 13.9% considered themselves problem drinkers. Data for the province relayed similar findings, with 78.2% of individuals reported to be current drinkers and 15.2% problem drinkers.

Results from the 2002 Alberta Addiction Survey on the use of alcohol, injection drugs and other drugs showed a slightly higher use of alcohol for the province (84.6%) compared with the Alberta Alcohol Survey, and 3.4% of respondents reported alcohol dependence. Twenty-one percent of respondents reported the use of drugs, with marijuana the most common (14%). There was a reported 2% use of amphetamines, cocaine and hallucinogens and tranquillizers, and heroin use was below 2%. Findings from the survey also revealed an increase in the use of cocaine among opiate users.

According to baseline data from the 2002–03 OPICAN Cohort Study – a survey of untreated opiate users – 92.5% of respondents reported having injected drugs in the last 30 days, of whom 34.7% shared injecting equipment and 20.4% shared needles. Further, 50.9% of opiate users reported having received treatment in the past 12 months and 55.6% had received methadone maintenance treatment.

Edmonton is estimated to have 5,000 injection drug users. The Ethnographic Study of Injection Drug Users, a combination of two studies and reports on 2001–02 and 2002–03 data, concluded that among injection drug users in Edmonton, the most frequent first drug injected was cocaine (31%) followed by methadone/speed (27%); the most common current drugs injected were opiates (33%), and Talwin and Ritalin (25%); 72% of study participants were infected with hepatitis C; and 53% were not currently seeking treatment. Reasons given for not seeking treatment included fear of being judged, long waiting lists, an overly bureaucratic system, and treatment being painful and stressful.

The Edmonton CCENDU site plans to expand its data collection by gathering secondary data from the Alberta Alcohol and Drug Abuse Commission, Capital Hill Authority, Alberta departments of health, justice and transport, RCMP-K Division, Health Canada and the Streetworks Harm Reduction Agency.

Fredericton, New Brunswick (Report)

The main drug of choice in Fredericton is alcohol, as evidenced by the number of clients who present themselves for treatment in the Detoxification Unit and Outpatient Services of Addiction Services, River Valley Health. It is also reflected in the city's alcohol-related mortality.

In 2001, there was a marked increase in the number of treatment clients presenting with cannabis-related problems, and with cannabis-related discharges that were higher in Fredericton than in the rest of the province. This number is increasing yearly, in particular among the younger age groups.

According to the 1999 student drug use survey, alcohol and cannabis use increased among the student population from 1996 to 1999.

Data from the local needle exchange program, the New Brunswick hepatitis C database, and the New Brunswick HIV/AIDS database, indicate that injection drug use is on the rise. From 1997 to 2001, 956 persons were recorded as having contracted hepatitis C in New Brunswick, with 47.8% identified as injection drug users. In the province, 20.5% of those with HIV/AIDS were identified as injection drug users.

Of particular concern to Fredericton and the surrounding area is an increase in the use of Dilaudid, in particular among injection drug users. Partnerships have been developed involving the municipal police force, RCMP, Addiction Services, University of New Brunswick, AIDS New Brunswick, and the Department of Health and Wellness to address this issue. Together, these organizations are providing education and intervention for individuals who are active in the Fredericton drug scene.

Crime data collected by the Fredericton Police Department reveal that an average of 4.2% of 23,160 recorded criminal events from 1998 to 2001 were directly related to alcohol and drugs. Among these, 73.1% were attributed to alcohol, 21.9% were related to cannabis, and crimes related to cocaine and other drugs accounted for the remaining 5%.

Halifax, Nova Scotia (Annual meeting update)

A treatment client drug use study conducted in 2001 with 5,262 males and 2,590 females found that 80% of respondents were using cocaine, benzodiazepines and/or opiates. Cannabis use was slightly less than 80%.

The 1998 Student Drug Use Survey found that the use of alcohol, nicotine and cannabis more than once a month increased respectively by 30%, 40% and 9% from 1991. Cannabis use tripled (4.4% in 1991 to 13.5% in 1998). LSD use decreased slightly between 1996 and 1998 (from 15% to 11%). MDMA (ecstasy) use is on the increase.

Heroin, morphine and Demerol are commonly used among injection drug users in Atlantic Canada. Dilaudid is readily prescribed, and there have been documented cases of double-doctoring. Users are typically between 18 and 44 years of age, and injection drug use is becoming more prevalent among youth. Injection drug use is also highly prevalent among men and women who work in the sex trade.

Between August 1996 and March 2001, there were 214 Drug Dependency Services methadone service admissions (160 male, 54 female). The average age was 39.8 years, with the youngest being 20 and the oldest 59.

Montreal, Québec (Annual meeting update not available)

Ottawa, Ontario/National Capital Region (Interim Report)

The National Capital Region site encompasses both sides of the Quebec and Ontario provincial boarder.

The 2001 Ontario Student Drug Use Survey reported that 66% of students from Grade 7 to 13 used alcohol in the previous year and 71% reported drinking during their lifetime. A 1999 student survey in the city of Ottawa concluded that 61% of students between Grade 7 and 10 had used alcohol at least once in the past year. Between 1991 and 1996 in Hull, Quebec, a student survey revealed that alcohol use over the past year increased from 49% to 56%; however weekly consumption remained stable. A small but significant number of students in Ottawa (8%) were identified as problem drinkers. This rate is comparable to that of Ontario, in which 7% of students were identified as problem drinkers in 1999.

The 2001 Ontario Student Drug Use Survey also showed that approximately 30% of students used cannabis during the previous year and 34% had used it in their lifetime. Cannabis was the most common illicit drug used by students from Grade 7 to 13. In 1996, 25% of Hull high school students reported being current cannabis users. In 1999, 19% of Ottawa students between Grade 7 and 10 reported having used cannabis at least once in the past year. According to the 2000 Centre for Addiction and Mental Health report on drug use among adults, 35% of Ontario residents reported having used cannabis at least once in their lifetime, while 11% reported using it in the past 12 months.

Among individuals seeking treatment in Ottawa from 1998 to 1999, the majority of individuals (73%) reported an alcohol problem, followed by both cocaine and cannabis (33% each). Benzodiazepines and prescription opioids were also recorded as problem substances (5% and 4% respectively).

In 1998 there were 943 drug offences cleared by charge in the National Capital Region. The majority of charges (66%) were for cannabis.

In 1994–95, there were 393 hospital separations where the primary diagnosis involved alcohol, and 947 cases where it was the secondary diagnosis. Drug psychoses and drug dependence were the most common types of drug-related morbidity in Ottawa during this period, representing 43% of all primary diagnoses for drug-related occurrences. In Hull during 1999–2000, there were 328 drug-related cases of morbidity.

In 1992, there were 64 alcohol-related deaths in Ottawa, not including motor vehicle accidents. In 1995, 26 deaths were classified as drug-related (involving heroin or cocaine) in Ottawa. Between 1997 and 2000 in Hull, a total of 54 drug and alcohol-related deaths were recorded, not including motor vehicle accidents.

According to the 2000 SurvIDU study, there were an estimated 962 cases of HIV related to injection drug use in Ottawa. It was also estimated that Hull had 186 cases. A large percentage of the men and women were between the ages of 35 and 39 (24% for both groups).

Regina, Saskatchewan (Interim report)

The 2000 Regina Seroprevalence Study interviewed and collected blood and urine samples from 255 injection drug users. The sero-prevalence among participants was: 2% HIV, 20.6% hepatitis B, and 46.5% hepatitis C. A large percentage identified as having borrowed (44%) or lent (42%) used injecting equipment, and 29% reported sharing needles/syringes. Talwin and Ritalin were the drugs most frequently injected. Infrequent condom use with regular and casual sexual partners was reported.

According to the 2000–01 and 2001–02 Regina Health Authority, Alcohol and Drug Services Client Information System, the number of clients in each of the two years was nearly identical (3,852 vs. 3,848). The 2001–02 data reveal that alcohol remains what clients most often report as problematic: 70% report use of alcohol as a problem, 35% marijuana, 16.3% cocaine, 14.5% non-prescription drugs (including opioids), and 2% Lysol and solvents. Seventy-four percent of clients were under 40 years of age and 15%

under 20. Fifty percent of clients were of Aboriginal ancestry. Twenty-one percent of clients reported intravenous drug use either in the past year, prior to the past year or both.

In 2001, 34 deaths were investigated by the Coroner's Branch where alcohol was present in the deceased: natural causes (14), accidental death (8), suicides (7), homicide (4) and undetermined cause (1). Forty-seven deaths involving drugs were investigated: natural causes (21), accidental death (15), suicides (8), homicide (1) and undetermined cause (2).

There were seven deaths where methadone was present.

Between 1997–98 and 2001–02, there was a 1.6% increase in alcohol/drug-related hospital separations (2,167 in 1997–98 and 3,548 in 2001–02). Fifty-four percent were alcohol related, 7% opioid, 8% cannabis and 3% cocaine. Alcohol-related diagnoses increased from 1,345 to 1,918, while cannabis diagnoses rose from 113 to 281, cocaine diagnoses increased from 21 to 115, and opioid related diagnoses from 74 to 264. In 1997–98 there was one poisoning by methadone while nine were reported in 2001–02. Poisoning by antidepressants also increased.

Data derived from the Regina Integrated Drug Unit reveals an increase in cocaine use. Also, the age of people using drugs, including those injected, is getting younger. There is also greater visibility and use of injection drugs reported in upper class or privileged homes. Street drugs of choice are Talwin and Ritalin, Ecstasy, LSD, cocaine and morphine.

The Regional Health Authority, in partnership with the City of Regina Crime Prevention Commission and a number of community partners, has embarked on the development of a drug strategy project for the City of Regina and the health authority. The strategy consultation and report is expected to be completed for March, 2003.

St. John's, Newfoundland and Labrador (Annual meeting update)

Due to the recent retirement of Ron Tizzard, the St. John's CCENDU site no longer has a coordinator. RCMP Drug Awareness Coordinator Jim Skanes provided a brief update.

There is a strong presence of rave drugs compared with three years ago. There has also been an increase in pharmacy break and enters where OxyContin and Tylenol 4 were sought. In Labrador, gas sniffing continues to be a great problem.

Toronto, Ontario (Report)

Drug use among Toronto adults has remained stable over the past two decades, with only minor fluctuation. Among adolescents, however, the use of certain drugs increased over the past decade and is currently at elevated levels: cannabis (25%), MDMA (ecstasy) (6%), and hallucinogens (3%).

In 2000, the number of marijuana seizures continued on a decade-long upward trend, representing over half (52%) of drug seizures in Toronto. MDMA enforcement activity indicates a large increase from six seizures in 1997 to 219 in 2000. MDMA accounted for 4% of the total number of drug seizures in 2000. Seizures of cocaine and heroin have declined over the past decade.

Designer drug use, a relatively new phenomenon, poses new challenges in prevention of drug-related harms, especially with respect to drug identification and purity.

Crack cocaine continues to be the most popular drug on the street. In addition to smoking of the drug, the injection of crack is also widespread. Both modes of use raise concerns regarding the spread of hepatitis C.

Poly-drug use also appears to be widespread. While the effects of many illicit substances remain unknown, still less is known regarding the interactions between these drugs. New trends in enforcement and regulation include the Toronto Drug Treatment Court, the first of its kind in Canada, as well as the Health Canada trials of medical marijuana.

Vancouver, British Columbia (Report)

Data on injection drug use indicate the continuation of a comparatively larger problem than for any other Canadian jurisdiction. In 2001, there were 222 illicit drug deaths in BC, of which 90 were in Vancouver. This is the highest absolute number and per-capita rate in Canada. Heroin and cocaine remain the major drugs of choice for injection.

Between 1990 and 2000, there was an average of 281 deaths related to alcohol, compared with 134 for illicit drugs. The economic costs of alcohol misuse to BC in 1992 were estimated at more than \$943 million, and the costs of illicit drug use at more than \$208 million. Of the 21,937 drug crimes in BC in 2000, 16,730 were cannabis-related, 3,520 involved cocaine, 796 involved heroin and 891 involved other illicit drugs included in the Controlled Drugs and Substances Act.

Between 1995 and 1999, there were 2,497 drug-induced deaths in BC. Male deaths outnumbered female deaths by a ratio of 2.4 to 1. The most common cause of death for both was accidental poisoning by drugs: 1,385 deaths for males and 403 deaths for females. The most common drug-specific causes of death included: 31% heroin, 26% a combination of cocaine and heroin, 17% cocaine, and 11% a combination of heroin and ethanol.

The number of newly identified HIV infections in individuals in Vancouver continued to decline in 2000 to 242, which corresponds to a crude rate of 41.6 per 100,000. The 171 newly identified infections in the rest of BC in 2000 correspond to a crude rate of 6 per 100,000.

Whitehorse, Yukon (Annual meeting update)

Since the 2001 annual meeting, very little additional data have been available for the Whitehorse CCENDU site. Data that are available indicate that Whitehorse has the highest alcohol consumption rate in Canada. There are documented cases of alcohol being injected. In addition, educational institutions report that an exceptionally high percentage of children are affected by Fetal Alcohol Syndrome in some Yukon communities.

The latest educational initiative in the Yukon was related to the SASSY Program. This program has developed a booklet entitled, *Keeping Youth Drug Free: A guide for parents, grandparents, elders, mentors and other caregivers*. The booklet is aimed to act as a guide to help caregivers of 7- to 13-year-olds communicate with their children on the consequences of abusing drugs and alcohol and promoting healthy lifestyles. It also aims to serve as a way of encouraging youth to speak out if they are experiencing problems in relation to substance use and abuse. Created in 1998, SASSY is a partnership involving the RCMP, the Council of Yukon First Nations, the Skookum Jim Friendship Centre, the Government of Yukon, the Department of Education, the Department of Justice, the Department of Health and the Department of Social Services – Alcohol and Drug Secretariat.

Winnipeg, Manitoba (Report)

Alcohol continues to be the most prevalent substance used and abused in Manitoba. Its use is equally high among adult and youth populations, and the various harm-reduction and treatment centres in Winnipeg report the majority of clients were admitted for alcohol abuse. Law-enforcement agencies report continuing high numbers of alcohol use in traffic incidents, and Manitoba Public Insurance reports that alcohol is a common contributing factor in traffic collisions. Hospital admissions and deaths examined by the Office of the Chief Medical Examiner concur that alcohol is a major factor in the community. Alcohol dependence, non-dependent alcohol abuse, and alcoholic cirrhosis of the liver are common, and instances of alcohol via placenta/milk were also recorded. Of the deaths examined by the Chief Medical Examiner that were alcohol- and drug-related, the majority involved alcohol to some extent.

Drugs continue to play a major role in the health of the community, and the impact is both substantial and widespread. Treatment programs generally report a quarter to a half of clients using drugs at some time, and hospital admissions with drug-related diagnoses show that cocaine, crack cocaine, sedatives and tranquillizers are the most prevalent drugs reported. Drug offences recorded in Manitoba include possession, trafficking, importing/exporting, and cultivation of all drugs to some degree.

The most prevalent illicit drug in Manitoba is cannabis, and law enforcement agencies continue to effect large seizures of it. Despite its presence, heroin is still not considered a major drug in Winnipeg, and other drugs more commonly reported are cocaine, crack cocaine, hashish and hashish oil, Talwin, Ritalin, psilocybin, and LSD. Cocaine is often seized by law enforcement in large quantities, and the Addictions Foundation of Manitoba reports high usage of cocaine among its client populations.

According to recent reports, the predominant risk factors among hepatitis C-infected individuals are injection drug use and blood transfusion. Two key major provincial initiatives specific to hepatitis C were implemented in 2001 to test for the virus, and enhance care, support and prevention programs

2001 reports and updates²³²

Edmonton, Alberta (Report)

Alcohol is the most frequently used drug among both Edmonton residents and Alberta residents, and is the greatest contributor to morbidity and mortality. Almost 81% of Capital Health Authority residents have consumed alcohol in the previous year. In 1998, the majority of adult Alberta Alcohol and Drug Abuse Commission clients (63.5%) seeking treatment for drug use were abusing alcohol. Almost 24% of adolescent clients reported alcohol as the drug most frequently used in the past year. The Capital Health Authority reported 175 alcohol and drug related deaths in 1999. Most of the alcohol- and drug-related hospital and emergency department admissions in Edmonton were related to alcohol use.

A substantial number of people attended treatment for their use of cocaine, but little is known about their demographics and patterns of use. Cocaine was the drug most frequently used by 14.5% of adult Alberta Alcohol and Drug Abuse Commission clients and 9.2% of adolescent clients in 1998. In the 1998–99 fiscal year, 63.5% of clients that were new or chronic injection drug users frequently used cocaine. Six percent of street youth in Edmonton reported using cocaine or crack in a three-month period prior to 1999.

Data suggest that there is a substantial supply of cocaine in Edmonton, with the majority of drug charges from 1996 to 1999 being for cocaine trafficking. In addition, a sizable amount of cocaine has been seized, peaking at \$1.5 million in 1999. Cocaine abuse accounted for 2.6% of all drug-related emergency department visits in 1999.

Of AADAC's Edmonton-area clients admitted for treatment in the 1998–99 fiscal year, 20.9% were new or chronic injection drug users while 13.1% were former users. Among injection drug users seeking treatment in Edmonton, most reported injecting cocaine (64.3%), followed by heroin/opiates (21.7%), and Talwin and Ritalin (8.9%).

Sixty percent of new HIV infections in the Capital Health region in 1999 involved injection drug use or an injection drug use partner. Streetworks served 6,245 clients and exchanged 823,664 clean needles in 1999. Qualitative research in collaboration with Streetworks indicated that criminal records were barriers to employment, security, and access to health services.

Currently, there is limited information available on the use of club or designer drugs in Edmonton. About 3% of street youth reported using LSD and 2% reported using ecstasy in the last three months. The Edmonton CCENDU site aims to collaborate with Edmonton Police Services in the future to obtain more information about these drugs.

St. John's, Newfoundland and Labrador (Report)

The 1996 and 1998 Student Drug Use Survey (SDUS) of Grade 7, 9, 10, and 12 students in Newfoundland and Labrador indicated that 56.1% of those surveyed in 1996, and 58.6% of those surveyed in 1998 had used alcohol in the 12 months prior to the survey. In 1996 and 1998 respectively, the SDUS indicated that 29.5% and 33.1% of students from the census metropolitan area of St. John's reported having used cannabis in the 12 months prior to the survey.

The Newfoundland and Labrador AIDS Committee exchanged 205 needles in 2000. This compares with 100 in 1999 and 300 in 1998. The Division of Disease Control and Epidemiology, Department of Health and Community Services, reported three new cases of HIV infections in 2000. Only one of these three cases was reported to be related to injection drug use.

Alcohol was the most commonly abused substance recorded in hospital diagnoses for 2000, with a total of 347. This is down a substantial 43% from the 614 identified in 1999.

NOTES

231 Reporting on 2001 data.

232 Reporting on 2000 data.

Future Plans

A review of the information presented in this report makes evident the absence of current and sufficient data on substance use and abuse in Canada. This is a serious absence of information in Canada on a phenomenon that affects the life of nearly every Canadian. The *1999 Canadian Profile on Alcohol, Tobacco and Other Drugs*²³³ concluded that such “information gaps concerning problems of substance abuse greatly limit our ability to develop well-informed, timely and appropriately targeted responses in policy and programming” (p. 380). It is suggested here that the need is even greater for women and other population-specific studies due to a history of near inattention.

An optimistic approach to the lack of current information is that in some ways, Canada is at a building point for data collection and increased understanding. This provides an invaluable opportunity for gender and other variables to be accounted for at the start of the research, rather than inappropriately and inadequately added in at a later point.

This section concludes with general recommendations to address the current data limitations:

Prevalence – conduct a national incidence/prevalence survey because the most comprehensive recent data source dates back to 1994²³⁴. Data collected in this survey should be suitable for disaggregation to the provincial and local levels;

Treatment – implement a national standardized data collection system (e.g., US DAWN system); collect data from self-help groups and other forms of intervention; examine the availability of data collection from specific populations (e.g., Youth Solvent Abuse Committee);

Law Enforcement – augment current data with qualitative data collection (e.g., to offset issue of police targeting);

Mortality – gain greater and affordable access to national systems for collecting and reporting information on hospitalizations (i.e., Canadian Institute for Health Information);

Morbidity – address standardization in data collection; and

HIV/AIDS and hepatitis C – expand data collection and account for injection drug use.

Overall, Canada should invest in supporting its substance use monitoring systems such as the Canadian Community Epidemiology Network on Drug Use. This would ensure that data would be readily available, and attempts to collate data in reports such as this would not be such a daunting task and would yield, in many ways, more complete results.

To review, the aim of this report was: (1) to describe the CCENDU network and provide an update on its development, (2) to outline the network’s indicators and data sources, (3) to highlight the most currently available national data, and (4) to present themes and select data from the 2002 and 2001 site reports. The next stage is to provide expanded data for many of the indicator sources discussed within this report on the CCENDU Web site. It is intended that data highlighted in this report will be released regularly over the coming months (in particular, data that were acquired and analyzed by the report authors), as well as additional and updated data sources as they become available. It is intended that the data will be provided at the national and provincial levels, and at the local site level for major centres in which a CCENDU site has yet to be established.

NOTES

- 233 Canadian Centre on Substance Abuse & Centre for Addiction and Mental Health (1999). *Canadian Profile on Alcohol, Tobacco and Other Drug*. Ottawa: Canadian Centre on Substance Abuse & Centre for Addiction and Mental Health.
- 234 Statistics Canada, *Canada's Alcohol and Other Drugs Survey* (1995). Ottawa: Statistics Canada, Canadian Centre for Health Information.

Appendix A

DATA	SOURCE	SAMPLE	WEBSITE
Survey of First Nations People Living on Reserves (2002)	Indian & Northern Affairs	1,427 respondents	www.ainc-inac.gc.ca
Addiction Treatment Services Database	Canadian Centre on Substance Abuse	—	www.ccsa.ca
Adult Criminal Court Survey	Canadian Centre for Justice Statistics	80% national adult criminal court coverage (NB, MB, BC excluded)	www.statcan.ca
Annual Statistical Bulletin of the Brewers	Brewers Association of Canada	—	www.brewers.ca
Canada's Alcohol & Other Drugs Survey (1994)	Special Surveys, Statistics Canada	12,155 respondents	www.statcan.ca
Canadian Campus Survey (1998)	Centre for Addiction & Mental Health	7,800 respondents	www.camh.net
Canadian Community Health Survey (2000–01)	Health Statistics Division, Statistics Canada	130,000+ respondents (12+)	www.statcan.ca
Causes of Death	Health Statistics Division, Statistics Canada	—	www.statcan.ca
Customs Intelligence Bulletin	Canada Customs & Revenue Agency	—	www.ccr-a-adrc.gc.ca
First Nations & Inuit Community Youth Solvent Abuse Survey (1993)	Kaweeionnehta Human Resource Group	1,248 respondents	www.ainc-inac.gc.ca
First Nations & Inuit Regional Health Survey (2002)	Health Canada	10,085 respondents	www.hc-sc.gc.ca
General Review Report of the National Native Alcohol and Drug Abuse Program (1998)	Health Canada	—	www.hc-sc.gc.ca
General Social Survey (1993)	Housing, Family & Social Statistics Division, Statistics Canada	10,000 respondents	www.statcan.ca
HIV & AIDS in Canada, Surveillance Report	Division of HIV/AIDS Epidemiology & Surveillance, Health Canada	—	www.hc-sc.gc.ca
Hospital Morbidity Database	Canadian Institute for Health Information	—	www.cihi.ca
Kids Help Phone	Kids Help Phone	—	www.kidshelp.sympatico.ca
Parent Help Line	Kids Help Phone	—	www.kidshelp.sympatico.ca
National Health Expenditure Database	Canadian Institute for Health Information	—	www.cihi.ca
National Longitudinal Survey of Children & Youth (1998–99)	Statistics Canada & Human Resources Development Canada	5,539 Children, 31,963 Adults	www.statcan.ca
National Population Health Survey (1998–99)	Health Statistics Division, Statistics Canada	14,682 respondents (15+)	www.statcan.ca
National Population Health Survey (1996–97)	Health Statistics Division, Statistics Canada	70,884 respondents (15+)	www.statcan.ca
National Population Health Survey (1994–95)	Health Statistics Division, Statistics Canada	16,989 respondents (15+)	www.statcan.ca
Residential Care Facilities Survey	Health Statistics Division, Statistics Canada	183 reporting facilities	www.statcan.ca
Road Safety Monitor (2001)	Traffic Injury Research Foundation	1,207 respondents	www.trafficingjuryresearch.com
Road Safety Monitor (2002)	Traffic Injury Research Foundation	1,214 respondents	www.trafficingjuryresearch.com
The Alcohol Crash Problem	Traffic Injury Research Foundation	—	www.trafficingjuryresearch.com
Uniform Crime Reporting Survey	Canadian Centre for Justice Statistics	154 police depts. in 9 provinces (excludes PEI)	www.statcan.ca

— Not a sample.

May not be 100% population coverage.

